

Spondylarthritis

Inflammatory Lesions of the Spine on Magnetic Resonance Imaging Predict the Development of New Syndesmophytes in Ankylosing Spondylitis: Evidence of a Relationship Between Inflammation and New Bone Formation

Walter P. Maksymowych, Praveena Chiowchanwisawkit, Tracey Clare, Susanne J. Pedersen, Mikkel Østergaard, and Robert G. W. Lambert 93

Experimental Arthritis

Tolerization With Hsp65 Induces Protection Against Adjuvant-Induced Arthritis by Modulating the Antigen-Directed Interferon- γ , Interleukin-17, and Antibody Responses

Shailesh R. Satpute, Rajesh Rajaiah, Swamy K. Polumuri, and Kamal D. Moudgil 103

Stimulation of Nicotinic Acetylcholine Receptors Attenuates Collagen-Induced Arthritis in Mice

Marjolein A. van Maanen, Maria C. Lebre, Tom van der Poll, Gregory J. LaRosa, Daniel Elbaum, Margriet J. Vervoordeldonk, and Paul P. Tak 114

Search for Next Editor, *Arthritis & Rheumatism* (2010–2015 Term)

122

Cell Biology

CTLA-4 (CD152) Controls Homeostasis and Suppressive Capacity of Regulatory T Cells in Mice

Paula Kolar, Karin Knieke, J. Kolja E. Hegel, Dagmar Quandt, Gerd-R. Burmester, Holger Hoff, and Monika C. Brunner-Weinzierl 123

Cartilage Biology

Modulation of Lubricin Biosynthesis and Tissue Surface Properties Following Cartilage Mechanical Injury

Aled R. C. Jones, Shuodan Chen, Diana H. Chai, Anna L. Stevens, Jason P. Gleghorn, Lawrence J. Bonassar, Alan J. Grodzinsky, and Carl R. Flannery 133

Effect of Interleukin-1 β on Osteogenic Protein 1-Induced Signaling in Adult Human Articular Chondrocytes

Amel M. Elshaier, Arnavaz A. Hakimyan, Lev Rappoport, David C. Rueger, and Susan Chubinskaya 143

Blocking Vascular Endothelial Growth Factor With Soluble Flt-1 Improves the Chondrogenic Potential of Mouse Skeletal Muscle-Derived Stem Cells

Seiji Kubo, Gregory M. Cooper, Tomoyuki Matsumoto, Julie A. Phillipi, Karin A. Corsi, Arvydas Usas, Guangheng Li, Freddie H. Fu, and Johnny Huard 155

Identification of the Core Element Responsive to Runt-Related Transcription Factor 2 in the Promoter of Human Type X Collagen Gene

Akira Higashikawa, Taku Saito, Toshiyuki Ikeda, Satoru Kamekura, Naohiro Kawamura, Akinori Kan, Yasushi Oshima, Shinsuke Ohba, Naoshi Ogata, Katsushi Takeshita, Kozo Nakamura, Ung-il Chung, and Hiroshi Kawaguchi 166

Errata

Reporting of Funding and Collection of Samples in Articles by Valdes et al (Arthritis Rheum, January 2007 and Arthritis Rheum, February 2006) 178

Osteoarthritis

Differential Expression of α B-Crystallin and Evidence of Its Role as a Mediator of Matrix Gene Expression in Osteoarthritis

Stijn Lambrecht, Gust Verbruggen, Dirk Elewaut, and Dieter Deforce 179

Quadriceps Strength and the Risk of Cartilage Loss and Symptom Progression in Knee Osteoarthritis

Shreyasee Amin, Kristin Baker, Jingbo Niu, Margaret Clancy, Joyce Goggins, Ali Guermazi, Mikayel Grigoryan, David J. Hunter, and David T. Felson 189

Clinical Images

Lumbar Spondylolisthesis Caused by Tophaceous Gout

Kai-Hsiung Ko, Guo-Shu Huang, and Wei-Chou Chang 198

Systemic Lupus Erythematosus

CXCR3+CD4+ T Cells Are Enriched in Inflamed Kidneys and Urine and Provide a New Biomarker for Acute Nephritis Flares in Systemic Lupus Erythematosus Patients

P. Enghard, J. Y. Humrich, B. Rudolph, S. Rosenberger, R. Biesen, A. Kuhn, R. Manz, F. Hiepe, A. Radbruch, G.-R. Burmester, and G. Riemekasten 199

Genetic, Immunologic, and Immunohistochemical Analysis of the Programmed Death 1/Programmed Death Ligand 1 Pathway in Human Systemic Lupus Erythematosus

George K. Bertsias, Magda Nakou, Christianna Choulaki, Amalia Raptopoulou, Eva Papadimitraki, George Goulielmos, Herakles Kritikos, Prodromos Sidiropoulos, Maria Tzardi, Dimitris Kardassis, Clio Mamalaki, and Dimitrios T. Boumpas 207

Systemic Sclerosis

Treatment With Imatinib Prevents Fibrosis in Different Preclinical Models of Systemic Sclerosis and Induces Regression of Established Fibrosis
Alfiya Akhmetshina, Paulius Venalis, Clara Dees, Nicole Busch, Jochen Zwerina, Georg Schett, Oliver Distler, and Jörg H. W. Distler 219

Association Between the *IRF5* rs2004640 Functional Polymorphism and Systemic Sclerosis: A New Perspective for Pulmonary Fibrosis
P. Dieudé, M. Guedj, J. Wipff, J. Avouac, I. Fajard, E. Diot, B. Granel, J. Sibilia, J. Cabane, L. Mouthon, J. L. Cracowski, P. H. Carpentier, E. Hachulla, O. Meyer, A. Kahan, C. Boileau, and Y. Allanore 225

Requirement of Transforming Growth Factor β -Activated Kinase 1 for Transforming Growth Factor β -Induced α -Smooth Muscle Actin Expression and Extracellular Matrix Contraction in Fibroblasts
Xu Shi-wen, Sunil K. Parapuram, Daphne Pala, Yunliang Chen, David E. Carter, Mark Eastwood, Christopher P. Denton, David J. Abraham, and Andrew Leask 234

Childhood Arthritis

Role of the *NOD2* Genotype in the Clinical Phenotype of Blau Syndrome and Early-Onset Sarcoidosis
Ikuo Okafuji, Ryuta Nishikomori, Nobuo Kanazawa, Naotomo Kambe, Akihiro Fujisawa, Shin Yamazaki, Megumu Saito, Takakazu Yoshioka, Tomoki Kawai, Hidemasa Sakai, Hideaki Tanizaki, Toshio Heike, Yoshiki Miyachi, and Tatsutoshi Nakahata 242

Association of the *IL2RA/CD25* Gene With Juvenile Idiopathic Arthritis
Anne Hinks, Xiayi Ke, Anne Barton, Steve Eyre, John Bowes, Jane Worthington, the UK Rheumatoid Arthritis Genetics Consortium, the British Society of Paediatric and Adolescent Rheumatology Study Group, Susan D. Thompson, Carl D. Langefeld, David N. Glass, and Wendy Thomson 251

Identification of a Novel Susceptibility Locus for Juvenile Idiopathic Arthritis by Genome-Wide Association Analysis
Anne Hinks, Anne Barton, Neil Shephard, Steve Eyre, John Bowes, Michele Cargill, Eric Wang, Xiayi Ke, the British Society of Paediatric and Adolescent Rheumatology Study Group, Giulia C. Kennedy, Sally John, Jane Worthington, and Wendy Thomson 258

Autoinflammatory Disease

Successful Treatment of Idiopathic Recurrent Pericarditis in Children With Interleukin-1 β Receptor Antagonist (Anakinra): An Unrecognized Autoinflammatory Disease?
Paolo Picco, Giacomo Brisca, Francesco Traverso, Anna Loy, Marco Gattorno, and Alberto Martini 264

Novel Markers of Inflammation Identified in Tumor Necrosis Factor Receptor-Associated Periodic Syndrome (TRAPS) by Transcriptomic Analysis of Effects of TRAPS-Associated Tumor Necrosis Factor Receptor Type I Mutations in an Endothelial Cell Line
Susana L. Rebelo, Mohammad R. Amel-Kashipaz, Paul M. Radford, Susan E. Bainbridge, Roel Fiets, Johnny Fang, Elizabeth M. McDermott, Richard J. Powell, Ian Todd, and Patrick J. Tighe 269

Gout

Resident Macrophages Initiating and Driving Inflammation in a Monosodium Urate Monohydrate Crystal-Induced Murine Peritoneal Model of Acute Gout
William John Martin, Michaela Walton, and Jacquie Harper 281

Hemophilic Arthropathy

The Combination of the Biomarkers Urinary C-Terminal Telopeptide of Type II Collagen, Serum Cartilage Oligomeric Matrix Protein, and Serum Chondroitin Sulfate 846 Reflects Cartilage Damage in Hemophilic Arthropathy
Nathalie W. D. Jansen, Goris Roosendaal, Björn Lundin, Lily Heijnen, Evelien Mauser-Bunschoten, Johannes W. J. Bijlsma, Matthias Theobald, and Floris P. J. G. Lafeber 290

Clinical Image

Brain Perfusion Single-Photon-Emission Computed Tomography Findings in a Patient With an Asymmetric Fibromyalgia Syndrome
Eric Guedj, Serge Cammilleri, Jean Niboyet, and Olivier Mundler 298

Fibromyalgia

Sodium Oxybate Relieves Pain and Improves Function in Fibromyalgia Syndrome: A Randomized, Double-Blind, Placebo-Controlled, Multicenter Clinical Trial
I. Jon Russell, A. Thomas Perkins, Joel E. Michalek, and the Oxybate SXB-26 Fibromyalgia Syndrome Study Group 299

Letters

Reply to Letter by Volkman Commenting on the Possible Onset of Seronegative Disease in Lyme Arthritis
Allen C. Steere 310

Thymic Function and Immune Senescence in Juvenile Idiopathic Arthritis: Comment on the Article by Prelog et al	310
<i>A. R. Lorenzi, H. E. Foster, and J. D. Isaacs</i>	
Reply	
<i>M. Prelog and J. Brunner</i>	311
Clinical Images	
Hypertension Due to Otherwise Asymptomatic, Complete Aortic Occlusion in Takayasu Arteritis <i>Natalia Correa Vieira Melo, Luis Henrique Bezerra Cavalcanti Sette, Fernanda Oliveira Coelho, Emir Mendonça Lima-Verde, Alfredo Nicodemos Cruz Santana, and Jose Nery Praxedes</i>	312
ACR Announcements	A25

VOLUME 60

FEBRUARY 2009

NO. 2

In This Issue	A13
Special Articles	
ACR Presidential Address: Unity in the Field of Rheumatology: The Role of the ACR <i>David A. Fox</i>	313
Editorial: Inhibition of p38: Has the Fat Lady Sung? <i>Mark C. Genovese</i>	317
Editorial: Pain and Rheumatology: Thinking Outside the Joint <i>Daniel J. Clauw and James Witter</i>	321
Review: Employing Molecular Genetics of Chondrodysplasias to Inform the Study of Osteoarthritis <i>Peter Kannu, John F. Bateman, Daniele Belluocchio, Amanda J. Fosang, and Ravi Savarirayan</i>	325
Rheumatoid Arthritis Clinical Studies	
Evaluation of the Efficacy and Safety of Pamapimod, a p38 MAP Kinase Inhibitor, in a Double-Blind, Methotrexate-Controlled Study of Patients With Active Rheumatoid Arthritis <i>Stanley B. Cohen, Tien-Tsai Cheng, Vishala Chindalore, Nemanja Damjanov, Ruben Burgos-Vargas, Patricia DeLora, Kathleen Zimany, Helen Travers, and John P. Caulfield</i>	335
Rheumatoid Arthritis Basic Science Studies	
Role of Placenta Growth Factor and Its Receptor flt-1 in Rheumatoid Inflammation: A Link Between Angiogenesis and Inflammation <i>Seung-Ah Yoo, Hyung-Ju Yoon, Hyun-Sook Kim, Chi-Bom Chae, Sandro De Falco, Chul-Soo Cho, and Wan-Uk Kim</i>	345
Expression, Regulation, and Signaling of the Pattern-Recognition Receptor Nucleotide-Binding Oligomerization Domain 2 in Rheumatoid Arthritis Synovial Fibroblasts <i>Caroline Ospelt, Fabia Brentano, Astrid Jüngel, Yvonne Rengel, Christoph Kolling, Beat A. Michel, Renate E. Gay, and Steffen Gay</i>	355
Genetic Risk Factors for Rheumatoid Arthritis Differ in Caucasian and Korean Populations <i>Hye-Soon Lee, Benjamin D. Korman, Julie M. Le, Daniel L. Kastner, Elaine F. Remmers, Peter K. Gregersen, and Sang-Cheol Bae</i>	364
Study of Functional Variants of the <i>BANK1</i> Gene in Rheumatoid Arthritis <i>Gisela Orozco, Anna-Karin Abelson, Miguel A. González-Gay, Alejandro Balsa, Dora Pascual-Salcedo, Antonio García, Benjamín Fernández-Gutiérrez, Ingemar Petersson, Bernardo Pons-Estel, Alicia Eimon, Sergio Paire, Hugo R. Scherbarth, Marta Alarcón-Riquelme, and Javier Martín</i>	372
Clinical Images	
Otitis Media and Nasal Granulation in Wegener's Granulomatosis <i>Toshihiro Nagato, Ryuki Otaka, Tetsuji Wada, Naoki Kanai, and Yasuaki Harabuchi</i>	379
Experimental Arthritis	
Therapeutic Effect of Exosomes From Indoleamine 2,3-Dioxygenase-Positive Dendritic Cells in Collagen-Induced Arthritis and Delayed-Type Hypersensitivity Disease Models <i>Nicole R. Bianco, Seon Hee Kim, Melanie A. Ruffner, and Paul D. Robbins</i>	380
Proinflammatory Role of the Th17 Cytokine Interleukin-22 in Collagen-Induced Arthritis in C57BL/6 Mice <i>Lies Geboes, Laure Dumoutier, Hilde Kelchtermans, Evelien Schurgers, Tania Mitera, Jean-Christophe Renaud, and Patrick Matthys</i>	390

Different Amplifying Mechanisms of Interleukin-17 and Interferon- γ in Fc γ Receptor-Mediated Cartilage Destruction in Murine Immune Complex-Mediated Arthritis Lilyanne C. Grevers, Peter L. E. M. van Lent, Marije I. Koenders, Birgitte Walgreen, Annet W. Sloetjes, Falk Nimmerjahn, J. Sjef Verbeek, and Wim B. van den Berg	396
Unmasking of a Protective Tumor Necrosis Factor Receptor I-Mediated Signal in the Collagen-Induced Arthritis Model Cheryll Williams-Skipp, Thiagarajan Raman, Robert J. Valuck, Herschel Watkins, Brent E. Palmer, and Robert I. Scheinman	408
Detection of Arthritis-Susceptibility Loci, Including <i>Ncf1</i> , and Variable Effects of the Major Histocompatibility Complex Region Depending on Genetic Background in Rats Carola Rintisch, Michael Förster, and Rikard Holmdahl	419
Cartilage Biology	
Involvement of the Notch Pathway in the Regulation of Matrix Metalloproteinase 13 and the Dedifferentiation of Articular Chondrocytes in Murine Cartilage Régis Blaise, Mouna Mahjoub, Colette Salvat, Ullah Barbe, Christel Brou, Marie-Thérèse Corvol, Jean-François Savouret, François Rannou, Francis Berenbaum, and Pedro Bausero	428
Alteration of Articular Cartilage Frictional Properties by Transforming Growth Factor β , Interleukin-1 β , and Oncostatin M Jason P. Gleghorn, Aled R. C. Jones, Carl R. Flannery, and Lawrence J. Bonassar	440
In Vitro Stage-Specific Chondrogenesis of Mesenchymal Stem Cells Committed to Chondrocytes Wei-Hong Chen, Ming-Tang Lai, Alexander T. H. Wu, Chia-Che Wu, Juri G. Gelovani, Che-Tong Lin, Shih-Chieh Hung, Wen-Ta Chiu, and Win-Ping Deng	450
Disc Disease	
Altered Integrin Mechanotransduction in Human Nucleus Pulusus Cells Derived From Degenerated Discs Christine Lyn Le Maitre, Jennie Frain, Jane Millward-Sadler, Andrew P. Fotheringham, Anthony John Freemont, and Judith Alison Hoyland	460
Associations of 25 Structural, Degradative, and Inflammatory Candidate Genes With Lumbar Disc Desiccation, Bulging, and Height Narrowing Tapio Videman, Janna Saarela, Jaakko Kaprio, Annu Nakkki, Esko Levälahti, Kevin Gill, Leena Peltonen, and Michele C. Battie	470
Modified Expression of the ADAMTS Enzymes and Tissue Inhibitor of Metalloproteinases 3 During Human Intervertebral Disc Degeneration Aneta J. Pockert, Stephen M. Richardson, Christine L. Le Maitre, Malcolm Lyon, Jonathan A. Deakin, David J. Buttle, Anthony J. Freemont, and Judith A. Hoyland	482
Osteoarthritis Basic Science Studies	
Increased Expression of the Akt/PKB Inhibitor TRB3 in Osteoarthritic Chondrocytes Inhibits Insulin-like Growth Factor 1-Mediated Cell Survival and Proteoglycan Synthesis John D. Cravero, Cathy S. Carlson, Hee-Jeong Im, Raghunatha R. Yammani, David Long, and Richard F. Loeser	492
Involvement of the Wnt Signaling Pathway in Experimental and Human Osteoarthritis: Prominent Role of Wnt-Induced Signaling Protein 1 Arjen B. Blom, Sarah M. Brockbank, Peter L. van Lent, Henk M. van Beuningen, Jeroen Geurts, Nozomi Takahashi, Peter M. van der Kraan, Fons A. van de Loo, B. Wim Schreurs, Kristen Clements, Peter Newham, and Wim B. van den Berg	501
Prostaglandin E ₂ and Its Cognate EP Receptors Control Human Adult Articular Cartilage Homeostasis and Are Linked to the Pathophysiology of Osteoarthritis Xin Li, Michael Ellman, Prasuna Muddasani, James H.-C. Wang, Gabriella Cs-Szabo, Andre J. van Wijnen, and Hee-Jeong Im	513
Search for Next Editor, <i>Arthritis & Rheumatism</i> (2010–2015 Term)	523
Osteoarthritis Clinical Studies	
Long-Term Effects of Chondroitins 4 and 6 Sulfate on Knee Osteoarthritis: The Study on Osteoarthritis Progression Prevention, a Two-Year, Randomized, Double-Blind, Placebo-Controlled Trial André Kahan, Daniel Uebelhart, Florent De Vathaire, Pierre D. Delmas, and Jean-Yves Reginster	524
Systemic Lupus Erythematosus	
Tissue Targeting of Anti-RNP Autoimmunity: Effects of T Cells and Myeloid Dendritic Cells in a Murine Model Eric L. Greidinger, YunJuan Zang, Irina Fernandez, Mariana Berho, Mehdi Nassiri, Laisel Martinez, and Robert W. Hoffman	534

Increased Expression of CD40 on Bone Marrow CD34+ Hematopoietic Progenitor Cells in Patients With Systemic Lupus Erythematosus: Contribution to Fas-Mediated Apoptosis Katerina Pyrovolaki, Irene Mavroudi, Prodromos Sidiropoulos, Aristides G. Eliopoulos, Dimitrios T. Boumpas, and Helen A. Papadaki.....	543
Replication of the Association Between the C8orf13-BLK Region and Systemic Lupus Erythematosus in a Japanese Population Ikue Ito, Aya Kawasaki, Satoshi Ito, Taichi Hayashi, Daisuke Goto, Isao Matsumoto, Akito Tsutsumi, Geoffrey Hom, Robert R. Graham, Yoshinari Takasaki, Hiroshi Hashimoto, Jun Ohashi, Timothy W. Behrens, Takayuki Sumida, and Naoyuki Tsuchiya.....	553
Antiphospholipid Syndrome	
β ₂ -Glycoprotein I Is a Cofactor for Tissue Plasminogen Activator–Mediated Plasminogen Activation Chunya Bu, Lei Gao, Weidong Xie, Jainwei Zhang, Yuhong He, Guoping Cai, and Keith R. McCrae.....	559
Systemic Sclerosis	
Survival in Pulmonary Hypertension Associated With the Scleroderma Spectrum of Diseases: Impact of Interstitial Lung Disease Stephen C. Mathai, Laura K. Hummers, Hunter C. Champion, Fredrick M. Wigley, Ari Zaiman, Paul M. Hassoun, and Reda E. Girgis.....	569
B Cell Depletion With Rituximab in Patients With Diffuse Cutaneous Systemic Sclerosis Robert Lafyatis, Eugene Kissin, Michael York, Giuseppina Farina, Kerry Viger, Marvin J. Fritzler, Peter A. Merkel, and Robert W. Simms.....	578
Molecular Framework for Response to Imatinib Mesylate in Systemic Sclerosis Lorinda Chung, David F. Fiorentino, Maya J. BenBarak, Adam S. Adler, Melissa M. Mariano, Ricardo T. Paniagua, Ausra Milano, M. Kari Connolly, Boris D. Ratiner, Robert L. Wiskocil, Michael L. Whitfield, Howard Y. Chang, and William H. Robinson.....	584
α-Melanocyte-Stimulating Hormone Suppresses Bleomycin-Induced Collagen Synthesis and Reduces Tissue Fibrosis in a Mouse Model of Scleroderma: Melanocortin Peptides as a Novel Treatment Strategy for Scleroderma? Agatha Kokot, Anca Sindrilaru, Meinhard Schiller, Cord Sunderkötter, Claus Kerkhoff, Beate Eckes, Karin Scharffetter-Kochanek, Thomas A. Luger, and Markus Böhm	592
Childhood Arthritis	
HLA-E Gene Polymorphism Associated With Susceptibility to Kawasaki Disease and Formation of Coronary Artery Aneurysms Y.-J. Lin, L. Wan, J.-Y. Wu, J. J.-C. Sheu, C.-W. Lin, Y.-C. Lan, C.-H. Lai, C.-H. Hung, Y. Tsai, C.-H. Tsai, T.-H. Lin, J.-G. Lin, K.-C. Hsueh, Y.-M. Huang, J.-S. Chang, and F.-J. Tsai.....	604
Autoinflammatory Disease	
The NOD2 Defect in Blau Syndrome Does Not Result in Excess Interleukin-1 Activity Tammy M. Martin, Zili Zhang, Paul Kurz, Carlos D. Rosé, Hong Chen, Huiying Lu, Stephen R. Planck, Michael P. Davey, and James T. Rosenbaum.....	611
Proinflammatory Action of the Antiinflammatory Drug Infliximab in Tumor Necrosis Factor Receptor–Associated Periodic Syndrome Belinda Nedjai, Graham A. Hitman, Niamh Quillinan, Robert J. Coughlan, Leigh Church, Michael F. McDermott, and Mark D. Turner.....	619
Clinical Images	
Beyond the Classic Triad: Dermatologic Manifestations of Reactive Arthritis Sheila M. Greenlaw, Lauren Alberta-Wszolek, and Amit Garg	625
Concise Communications	
The Emergence of Antineutrophil Cytoplasmic Antibodies May Precede the Clinical Onset of Churg-Strauss Syndrome Jochen Zwerina, Roland Axmann, Bernhard Manger, and Georg Schett	626
A Functional Polymorphism in the Catechol-O-Methyltransferase Gene Is Associated With Osteoarthritis-Related Pain Joyce B. J. van Meurs, Andre G. Uitterlinden, Lisette Stolk, Hanneke J. M. Kerkhof, Albert Hofman, Huibert A. P. Pols, and Sita M. A. Bierma-Zeinstra.....	628
Letters	
Human Lupus, Fewer Treg Cells Indeed: Comment on the Article by Venigalla et al Makoto Miyara, Zahir Amoura, and Guy Gorochov	630
Different Roles for Anti-Cyclic Citrullinated Peptide Antibodies and CD4+CD28 ^{null} Cells in the Acceleration of Atherosclerosis in Rheumatoid Arthritis: Comment on the Article by Farragher et al Roberto Gerli, Gaetano Vaudo, Elena Bartoloni Bocci, Giuseppe Schillaci, Onelia Bistoni, and Yehuda Shoenfeld.....	631

Determining the Cause of Isolated Midline Destructive Lesions: Comment on the Clinical Images Presented by Kasifoglu et al <i>Eamonn Molloy, Gary S. Hoffman, and Carol A. Langford</i>	632
ACR Announcements	A19

VOLUME 60

MARCH 2009

NO. 3

In This Issue	A13
Special Articles	
Editorial: Meniscus—Friend or Foe: Epidemiologic Observations and Surgical Implications <i>Jeffrey N. Katz and Scott D. Martin</i>	633
Editorial: When the Levee Doesn't Break: A Novel Role of β_2 -Glycoprotein I to Protect Against Congenital Heart Block <i>Robert M. Clancy</i>	636
Winners of the 2008 American College of Rheumatology Annual Slide Competition <i>American College of Rheumatology Audiovisual Aids Subcommittee</i>	639
Rheumatoid Arthritis Clinical Studies	
Biomarkers of Inflammation and Development of Rheumatoid Arthritis in Women From Two Prospective Cohort Studies <i>Elizabeth W. Karlson, Lori B. Chibnik, Shelley S. Tworoger, I-Min Lee, Julie E. Buring, Nancy A. Shadick, JoAnn E. Manson, and Karen H. Costenbader</i>	641
Specific Association of Type 1 Diabetes Mellitus With Anti-Cyclic Citrullinated Peptide-Positive Rheumatoid Arthritis <i>Katherine P. Liao, Marie Gunnarsson, Henrik Källberg, Bo Ding, Robert M. Plenge, Leonid Padyukov, Elizabeth W. Karlson, Lars Klareskog, Johan Askling, and Lars Alfredsson</i>	653
Familial Associations of Rheumatoid Arthritis With Autoimmune Diseases and Related Conditions <i>Kari Hemminki, Xinjun Li, Jan Sundquist, and Kristina Sundquist</i>	661
Applications for Arthritis & Rheumatism Editor (2010–2015 Term) Now Available	668
Rheumatoid Arthritis Basic Science Studies	
Involvement of Breast Cancer Resistance Protein Expression on Rheumatoid Arthritis Synovial Tissue Macrophages in Resistance to Methotrexate and Leflunomide <i>Joost W. van der Heijden, Ruud Oerlemans, Paul P. Tak, Yehuda G. Assaraf, Maarten C. Kraan, George L. Scheffer, Conny J. van der Laken, Willem F. Lems, Rik J. Scheper, Ben A. C. Dijkmans, and Gerrit Jansen</i>	669
Tumor Necrosis Factor α -Induced Interleukin-32 Is Positively Regulated via the Syk/Protein Kinase C δ /JNK Pathway in Rheumatoid Synovial Fibroblasts <i>Se Hwan Mun, Jie Wan Kim, Seong Su Nah, Na Young Ko, Jun Ho Lee, Ju Dong Kim, Do Kyun Kim, Hyuk Soon Kim, Ji Da Choi, Soo Hyun Kim, Chang Keun Lee, Seung Hwa Park, Bo Kyung Kim, Hyung Sik Kim, Young Mi Kim, and Wahn Soo Choi</i>	678
Membrane Type 1 Matrix Metalloproteinase Is a Crucial Promoter of Synovial Invasion in Human Rheumatoid Arthritis <i>Mary-Clare Miller, Hugh B. Manning, Abhilash Jain, Linda Troeberg, Jayesh Dudhia, David Essex, Ann Sandison, Motoharu Seiki, Jagdeep Nanchahal, Hideaki Nagase, and Yoshifumi Itoh</i>	686
The DERA HLA-DR Alleles in Patients With Early Polyarthritis: Protection Against Severe Disease and Lack of Association With Rheumatoid Arthritis Autoantibodies <i>Nathalie Carrier, Pierre Cossette, Claude Daniel, Artur de Brum-Fernandes, Patrick Liang, Henri A. Ménard, and Gilles Boire</i>	698
CCAAT/Enhancer Binding Protein β Mediates Expression of Matrix Metalloproteinase 13 in Human Articular Chondrocytes in Inflammatory Arthritis <i>Mitsumasa Hayashida, Ken Okazaki, Junichi Fukushi, Akio Sakamoto, and Yukihide Iwamoto</i>	708
Spondylarthritis	
The Early Disease Stage in Axial Spondylarthritis: Results From the German Spondyloarthritis Inception Cohort <i>Martin Rudwaleit, Hildrun Haibel, Xenofon Baraliakos, Joachim Listing, Elisabeth Märker-Hermann, Henning Zeidler, Jürgen Braun, and Joachim Sieper</i>	717

Experimental Arthritis

Triggering of Proteinase-Activated Receptor 4 Leads to Joint Pain and Inflammation in Mice
Jason J. McDougall, Chunfen Zhang, Laurie Cellars, Eva Joubert, Chantelle M. Dixon, and Nathalie Vergnolle 728

Inhibition of Interleukin-33 Signaling Attenuates the Severity of Experimental Arthritis
Gaby Palmer, Dominique Talabot-Ayer, Céline Lamacchia, Dean Toy, Christian A. Seemayer, Sébastien Viatte, Axel Finckh, Dirk E. Smith, and Cem Gabay 738

GATA-3 Protects Against Severe Joint Inflammation and Bone Erosion and Reduces Differentiation of Th17 Cells During Experimental Arthritis

Jan Piet van Hamburg, Anne-Marie Mus, Marjolein J. W. de Brujin, Lisette de Vogel, Louis Boon, Ferry Cornelissen, Patrick Asmawidjaja, Rudi W. Hendriks, and Erik Lubberts 750

Cartilage Biology

Chondroitin Sulfate Increases Hyaluronan Production by Human Synoviocytes Through Differential Regulation of Hyaluronan Synthases: Role of p38 and Akt
Maha David-Raoudi, Brigitte Deschrevel, Sylvain Leclercq, Philippe Galéra, Karim Boumediene, and Jean-Pierre Pujol 760

Developmental and Osteoarthritic Changes in *Col6a1*-Knockout Mice: Biomechanics of Type VI Collagen in the Cartilage Pericellular Matrix

Leonidas G. Alexopoulos, Inchan Youn, Paolo Bonaldo, and Farshid Guilak 771

Activation of Cartilage Matrix Metalloproteinases by Activated Protein C
Miriam T. Jackson, Margaret M. Smith, Susan M. Smith, Christopher J. Jackson, Meilang Xue, and Christopher B. Little 780

Interleukin-7 Stimulates Secretion of S100A4 by Activating the JAK/STAT Signaling Pathway in Human Articular Chondrocytes

Raghunatha R. Yammani, David Long, and Richard F. Loeser 792

Interleukin-1 β and Tumor Necrosis Factor α Inhibit Chondrogenesis by Human Mesenchymal Stem Cells Through NF- κ B-Dependent Pathways
N. Wehling, G. D. Palmer, C. Pilapil, F. Liu, J. W. Wells, P. E. Müller, C. H. Evans, and R. M. Porter 801

Clinical Image

Mandibular Osteolysis Secondary to Systemic Sclerosis
Glen A. Toomayan and Emily N. Vinson 812

Bone Biology

Stromal Cell-Derived Factor 1/CXCR4 Signaling Is Critical for the Recruitment of Mesenchymal Stem Cells to the Fracture Site During Skeletal Repair in a Mouse Model
Toshiyuki Kitaori, Hiromu Ito, Edward M. Schwarz, Ryosuke Tsutsumi, Hiroyuki Yoshitomi, Shinya Oishi, Masakazu Nakano, Nobutaka Fujii, Takashi Nagasawa, and Takashi Nakamura 813

Osteoarthritis

Effect of Hyaluronic Acid in Symptomatic Hip Osteoarthritis: A Multicenter, Randomized, Placebo-Controlled Trial
Pascal Richette, Philippe Ravaud, Thierry Conrozier, Liana Euller-Ziegler, Bernard Mazières, Yves Maugars, Denis Mulleman, Pierre Clerson, and Xavier Chevalier 824

Meniscal Tear in Knees Without Surgery and the Development of Radiographic Osteoarthritis Among Middle-Aged and Elderly Persons: The Multicenter Osteoarthritis Study

Martin Englund, Ali Guermazi, Frank W. Roemer, Piran Aliabadi, Mei Yang, Cora E. Lewis, James Torner, Michael C. Nevitt, Burton Sack, and David T. Felson 831

Prevention of Cartilage Degeneration in a Rat Model of Osteoarthritis by Intraarticular Treatment With Recombinant Lubricin

Carl R. Flannery, Richard Zollner, Chris Corcoran, Aled R. Jones, Adam Root, Moisés A. Rivera-Bermúdez, Tracey Blanchet, Jason P. Gleghorn, Lawrence J. Bonassar, Alison M. Bendele, Elisabeth A. Morris, and Sonya S. Glasson 840

Systemic Lupus Erythematosus

Early Targets of Nuclear RNP Humoral Autoimmunity in Human Systemic Lupus Erythematosus
Brian D. Poole, Rebecca I. Schneider, Joel M. Guthridge, Cathy A. Velte, Morris Reichlin, John B. Harley, and Judith A. James 848

Clinical Image

Lupus Erythematosus Cells in Ascites Fluid
Utz Krug, Thomas Buchner, Till Fassbinder, Markus Gaubitz, and Wolfgang E. Berdel 859

Antiphospholipid Syndrome

Ro 60 Functions as a Receptor for β_2 -Glycoprotein I on Apoptotic Cells
Joanne H. Reed, Bill Giannakopoulos, Michael W. Jackson, Steven A. Krilis, and Tom P. Gordon 860

Systemic Sclerosis

MQX-503, a Novel Formulation of Nitroglycerin, Improves the Severity of Raynaud's Phenomenon: A Randomized, Controlled Trial
Lorinda Chung, Lee Shapiro, David Fiorentino, Murray Baron, Joseph Shanahan, Sangeeta Sule, Vivien Hsu, Naomi Rothfield, Virginia Steen, Richard W. Martin, Edwin Smith, Maureen Mayes, Robert Simms, Janet Pope, Bashar Kahaleh, M. E. Csuka, Barry Gruber, David Collier, Nadera Swiss, Adam Gilbert, Frederick J. Dechow, Jeffrey Gregory, and Fredrick M. Wigley 870

Lack of Agreement Between Rheumatologists in Defining Digital Ulceration in Systemic Sclerosis
Ariane L. Herrick, Christopher Roberts, Andrew Tracey, Alan Silman, Marina Anderson, Mark Goodfield, Neil McHugh, Lindsay Muir, and Christopher P. Denton 878

Childhood Arthritis

The Myeloid-Related Proteins 8 and 14 Complex, a Novel Ligand of Toll-like Receptor 4, and Interleukin-1 β Form a Positive Feedback Mechanism in Systemic-Onset Juvenile Idiopathic Arthritis
Michael Frosch, Martina Ahlmann, Thomas Vogl, Helmut Wittkowski, Nico Wulffraat, Dirk Foell, and Johannes Roth 883

The Meaning of Clinical Remission in Polyarticular Juvenile Idiopathic Arthritis: Gene Expression Profiling in Peripheral Blood Mononuclear Cells Identifies Distinct Disease States
Nicholas Knowlton, Kaiyu Jiang, Mark Barton Frank, Amita Aggarwal, Carol Wallace, Ryan McKee, Brad Chaser, Catherine Tung, Laura Smith, Yanmin Chen, Jeanette Osban, Kathleen O'Neil, Michael Centola, Julie L. McGhee, and James N. Jarvis 892

Association of the Autoimmunity Locus 4q27 With Juvenile Idiopathic Arthritis
H. M. Albers, F. A. S. Kurreeman, G. Stoeken-Rijsbergen, D. M. C. Brinkman, S. S. M. Kamphuis, M. A. J. van Rossum, H. J. Girschick, C. Wouters, R. K. Saurenmann, E. Hoppenreij, P. Slagboom, J. J. Houwing-Duistermaat, W. Verduijn, T. W. J. Huizinga, R. ten Cate, R. E. M. Toes, and M. W. Schilham 901

Letters

The Clinical Utility of a Rule for Predicting Rheumatoid Arthritis in Patients With Early Undifferentiated Arthritis: Comment on the Article by van der Helm-van Mil et al
A. G. Pratt, J. D. Isaacs, and G. Wilson 905

Reply
A. H. M. van der Helm-van Mil, T. W. J. Huizinga, and K. Raza 906

ACR Announcements A17**VOLUME 60****APRIL 2009****NO. 4****In This Issue** A15
Special Articles

Editorial: Stimulatory Autoantibodies to Platelet-Derived Growth Factor Receptors in Systemic Sclerosis: What Functional Autoimmunity Could Learn From Receptor Biology
Duska Dragun, Jörg H. W. Distler, Gabriela Riemekasten, and Oliver Distler 907

Editorial: Contrast in Aberrant MicroRNA Expression in Systemic Lupus Erythematosus and Rheumatoid Arthritis: Is MicroRNA-146 All We Need?
Edward K. L. Chan, Minoru Satoh, and Kaleb M. Pauley 912

Rheumatoid Arthritis

Quantitative Heritability of Anti-Citrullinated Protein Antibody-Positive and Anti-Citrullinated Protein Antibody-Negative Rheumatoid Arthritis
Diane van der Woude, Jeanine J. Houwing-Duistermaat, René E. M. Toes, Tom W. J. Huizinga, Wendy Thomson, Jane Worthington, Annette H. M. van der Helm-van Mil, and René R. P. de Vries 916

Opposing Effects of HLA-DRB1*13 Alleles on the Risk of Developing Anti-Citrullinated Protein Antibody-Positive and Anti-Citrullinated Protein Antibody-Negative Rheumatoid Arthritis
Emeli Lundström, Henrik Källberg, Marina Smolnikova, Bo Ding, Johan Rönnelid, Lars Alfredsson, Lars Klareskog, and Leonid Padyukov 924

CTLA4/ICOS Gene Variants and Haplotypes Are Associated With Rheumatoid Arthritis and Primary Biliary Cirrhosis in the Canadian Population
Erin J. Walker, Gideon M. Hirschfield, Chun Xu, Yan Lu, Xiangdong Liu, Yue Lu, Catalina Coltescu, Kesheng Wang, William G. Newman, Vivian Bykerk, Edward C. Keystone, Dianne Mosher, Christopher I. Amos, E. Jenny Heathcote, and Katherine A. Siminovitch 931

Sjögren's Syndrome	
Abnormal Basement Membrane Type IV Collagen α -Chain Composition in Labial Salivary Glands in Sjögren's Syndrome	938
<i>P. Poduval, T. Sillat, I. Virtanen, P. Porola, and Y. T. Konttinen</i>	
Spondylarthritis	
Clinical and Imaging Efficacy of Infliximab in HLA-B27-Positive Patients With Magnetic Resonance Imaging-Determined Early Sacroiliitis	946
<i>Nick Barkham, Helen I. Keen, Laura C. Coates, Philip O'Connor, Elizabeth Hensor, Alexander D. Fraser, Lorna S. Cawkwell, Alexander Bennett, Dennis McGonagle, and Paul Emery</i>	
Overexpression of Interleukin-23, but Not Interleukin-17, as an Immunologic Signature of Subclinical Intestinal Inflammation in Ankylosing Spondylitis	955
<i>Francesco Ciccia, Michele Bombardieri, Alfonso Principato, AnnaRita Giardina, Claudio Tripodo, Rossana Porcasi, Sergio Peralta, Vito Franco, Ennio Giardina, Antonio Craxi, Costantino Pitzalis, and Giovanni Triolo</i>	
Absence of a Classically Activated Macrophage Cytokine Signature in Peripheral Spondylarthritis, Including Psoriatic Arthritis	966
<i>Bernard Vandooren, Troy Noordenbos, Carmen Ambarus, Sarah Krausz, Tineke Cantaert, Nataliya Yeremenko, Maartje Boumans, Rene Lutter, Paul P. Tak, and Dominique Baeten</i>	
Psoriatic Arthritis	
Golimumab, a New Human Tumor Necrosis Factor α Antibody, Administered Every Four Weeks as a Subcutaneous Injection in Psoriatic Arthritis: Twenty-Four-Week Efficacy and Safety Results of a Randomized, Placebo-Controlled Study	968
<i>Arthur Kavanaugh, Iain McInnes, Philip Mease, Gerald G. Krueger, Dafna Gladman, Juan Gomez-Reino, Kim Papp, Julie Zrubek, Surekha Mudivarthi, Michael Mack, Sudha Visvanathan, and Anna Beutler</i>	
Reactive Arthritis	
No Increased Risk of Valvular Heart Disease in Adult Poststreptococcal Reactive Arthritis	987
<i>J. M. van Bemmel, V. Delgado, E. R. Holman, C. F. Allaart, T. W. J. Huizinga, J. J. Bax, and A. H. M. van der Helm-van Mil</i>	
Experimental Arthritis	
Amphoteric Liposomes Enable Systemic Antigen-Presenting Cell-Directed Delivery of CD40 Antisense and Are Therapeutically Effective in Experimental Arthritis	994
<i>Evangelos Andreakos, Una Rauchhaus, Athanassios Stavropoulos, Gerold Endert, Volkmar Wendisch, Amina S. Benahmed, Stavros Giaglis, James Karras, Sam Lee, Hans Gaus, C. Frank Bennett, Richard O. Williams, Paschalidis Sideras, and Steffen Panzner</i>	
Treatment of Experimental Arthritis by Inducing Immune Tolerance With Human Adipose-Derived Mesenchymal Stem Cells	1006
<i>Manuel A. González, Elena Gonzalez-Rey, Laura Rico, Dirk Büscher, and Mario Delgado</i>	
Bone Biology	
In Vitro Spontaneous Osteoclastogenesis of Human Peripheral Blood Mononuclear Cells Is Not Crucially Dependent on T Lymphocytes	1020
<i>Bernard Vandooren, Lode Melis, Eric M. Veys, Paul P. Tak, and Dominique Baeten</i>	
Disc Disease	
Notochordal Intervertebral Disc Cells: Sensitivity to Nutrient Deprivation	1026
<i>Thorsten Guehring, Geoff Wilde, Matthew Sumner, Thijs Grinhagen, Graeme B. Karney, Uday K. Tirlapur, and Jill P. G. Urban</i>	
Osteoarthritis	
Expression of MicroRNA-146a in Osteoarthritis Cartilage	1035
<i>Keiichiro Yamasaki, Tomoyuki Nakasa, Shigeru Miyaki, Masakazu Ishikawa, Masataka Deie, Nobuo Adachi, Yuji Yasunaga, Hiroshi Asahara, and Mitsuo Ochi</i>	
Microanatomic Studies to Define Predictive Factors for the Topography of Periarticular Erosion Formation in Inflammatory Arthritis	1042
<i>Dennis McGonagle, Ai Lyn Tan, Uffe Møller Døhn, Mikkel Østergaard, and Michael Benjamin</i>	
Defining Incident Radiographic Hip Osteoarthritis for Epidemiologic Studies in Women	1052
<i>Nigel K. Arden, Nancy E. Lane, Neeta Parimi, Kassim M. Javaid, Li-Yung Lui, Marc C. Hochberg, and Michael Nevitt</i>	
Systemic Lupus Erythematosus Clinical Studies	
Effect of Fluvastatin on Cardiac Outcomes in Kidney Transplant Patients With Systemic Lupus Erythematosus: A Randomized Placebo-Controlled Study	1060
<i>Gudrun E. Norby, Ingar Holme, Bengt Fellström, Alan Jardine, Edward Cole, Sadollah Abedini, and Hallvard Holdaas, on behalf of the Assessment of Lescol in Renal Transplantation Study Group</i>	

Systemic Lupus Erythematosus Basic Science Studies

MicroRNA-146a Contributes to Abnormal Activation of the Type I Interferon Pathway in Human Lupus by Targeting the Key Signaling Proteins

Yuanjia Tang, Xiaobing Luo, Huijuan Cui, Xuming Ni, Min Yuan, Yanzhi Guo, Xinfang Huang,

Haibo Zhou, Niek de Vries, Paul Peter Tak, Shunle Chen, and Nan Shen 1065

Variants Within *MECP2*, a Key Transcription Regulator, Are Associated With Increased Susceptibility to Lupus and Differential Gene Expression in Patients With Systemic Lupus Erythematosus

Ryan Webb, Jonathan D. Wren, Matlock Jeffries, Jennifer A. Kelly, Kenneth M. Kaufman, Yuhong Tang,

Mark Barton Frank, Joan Merrill, Robert P. Kimberly, Jeffrey C. Edberg, Rosalind Ramsey-Goldman,

Michelle Petri, John D. Reveille, Graciela S. Alarcón, Luis M. Vilá, Marta E. Alarcón-Riquelme,

Judith A. James, Timothy J. Vyse, Kathy L. Moser, Patrick M. Gaffney, Gary S. Gilkeson, John B. Harley,

and Amr H. Sawalha 1076

High-Density Genotyping of *STAT4* Reveals Multiple Haplotype Associations With Systemic Lupus Erythematosus in Different Racial Groups

Bahram Namjou, Andrea L. Sestak, Don L. Armstrong, Raphael Zidovetzki, Jennifer A. Kelly,

Noam Jacob, Voicu Ciobanu, Kenneth M. Kaufman, Joshua O. Ojwang, Julie Ziegler,

Francesco P. Quismorio, Jr., Andreas Reiff, Barry L. Myones, Joel M. Guthridge, Swapna K. Nath,

Gail R. Bruner, Ruth Mehrian-Shai, Earl Silverman, Marisa Klein-Gitelman, Deborah McCurdy,

Linda Wagner-Weiner, James J. Nocton, Chaim Putterman, Sang-Cheol Bae, Yun Jung Kim,

Michelle Petri, John D. Reveille, Timothy J. Vyse, Gary S. Gilkeson, Diane L. Kamen,

Marta E. Alarcón-Riquelme, Patrick M. Gaffney, Kathy L. Moser, Joan T. Merrill, R. Hal Scofield,

Judith A. James, Carl D. Langefeld, John B. Harley, and Chaim O. Jacob 1085

Interferon- α Treatment of Female (NZW \times BXSB)F₁ Mice Mimics Some but Not All Features Associated With the *Yaa* Mutation

Meera Ramanujam, Philip Kahn, Weiqing Huang, Haiou Tao, Michael P. Madaio, Stephen M. Factor,

and Anne Davidson 1096

Systemic Sclerosis Clinical Studies

Recombinant Human Relaxin in the Treatment of Systemic Sclerosis With Diffuse Cutaneous

Involvement: A Randomized, Double-Blind, Placebo-Controlled Trial

Dinesh Khanna, Philip J. Clements, Daniel E. Furst, Joseph H. Korn, Michael Ellman, Naomi Rothfield,

Fredrick M. Wigley, Larry W. Moreland, Richard Silver, Youn H. Kim, Virginia D. Steen, Gary S. Firestein,

Arthur F. Kavanaugh, Michael Weissman, Maureen D. Mayes, David Collier, Mary E. Csuka,

Robert Simms, Peter A. Merkel, Thomas A. Medsger, Jr., Martin E. Sanders, Paul Maranian, and

James R. Seibold, for the Relaxin Investigators and the Scleroderma Clinical Trials Consortium 1102

Anti-U3 RNP Autoantibodies in Systemic Sclerosis

Rohit Aggarwal, Mary Lucas, Noreen Fertig, Chester V. Oddis, and Thomas A. Medsger, Jr. 1112

Systemic Sclerosis Basic Science Studies

Effector CD8+ T Cells in Systemic Sclerosis Patients Produce Abnormally High Levels of Interleukin-13 Associated With Increased Skin Fibrosis

Patrizia Fischietti, Thomas A. Medsger, Jr., and Penelope A. Morel 1119

The Cannabinoid Receptor CB2 Exerts Antifibrotic Effects in Experimental Dermal Fibrosis

Alfiya Akhmetshina, Clara Dees, Nicole Busch, Jürgen Beer, Kerstin Sarter, Jochen Zwerina,

Andreas Zimmer, Oliver Distler, Georg Schett, and Jörg H. W. Distler 1129

Lack of Evidence of Stimulatory Autoantibodies to Platelet-Derived Growth Factor Receptor in Patients With Systemic Sclerosis

Jean-François Classen, Dan Henrohn, Fredrik Rorsman, Johan Lennartsson, Bernard R. Lauwerys,

Gerhard Wikström, Charlotte Rorsman, Sandrine Lenglez, Karin Franck-Larsson, Jean-Paul Tomasi,

Olle Kämpe, Marie Vanthuyne, Frédéric A. Houssiau, and Jean-Baptiste Demoulin 1137

Lack of Detection of Agonist Activity by Antibodies to Platelet-Derived Growth Factor Receptor α in a Subset of Normal and Systemic Sclerosis Patient Sera

Nick Loizos, Leah LaRiccia, Jami Weiner, Heather Griffith, Francesco Boin, Laura Hummers,

Frederick Wigley, and Paul Kussie 1145

Childhood Arthritis

Clinical Score for Nonbacterial Osteitis in Children and Adults

Annette F. Jansson, Thomas H. Müller, Leonhard Gliera, Donna Pauker Ankerst, U. Wintergerst,

Bernd H. Belohradsky, and Volkmar Jansson 1152

Extranodal Lymphoid Microstructures in Inflamed Muscle and Disease Severity of New-Onset Juvenile Dermatomyositis

Consuelo M. López de Padilla, Abbe N. Vallejo, David Lacomis, Kelly McNallan, and Ann M. Reed 1160

Association of RANTES Promoter Polymorphism With Juvenile Rheumatoid Arthritis

Tsung-Chieh Yao, Yi-Chan Tsai, and Jing-Long Huang 1173

Lyme Arthritis

HLA Type and Immune Response to *Borrelia burgdorferi* Outer Surface Protein A in People in Whom Arthritis Developed After Lyme Disease Vaccination

Robert Ball, Sean V. Shadomy, Abbie Meyer, Brigitte T. Huber, Mary S. Leffell, Andrea Zachary, Michael Belotto, Eileen Hilton, Marthe Bryant-Genevier, Martin E. Schriefer, Frederick W. Miller, and M. Miles Braun..... 1179

Vasculitis

Increased Morbidity From Ischemic Heart Disease in Patients With Wegener's Granulomatosis

Mikkel Faurschou, Lene Mellemkjaer, Inge Juul Sorensen, Bjarne Svalgaard Thomsen, Lene Dreyer, and Bo Baslund..... 1187

Is ¹⁸F-Fluorodeoxyglucose Positron Emission Tomography Scanning a Reliable Way to Assess Disease Activity in Takayasu Arteritis?

Laurent Arnaud, Julien Haroche, Zoulikha Malek, Frédérique Archambaud, Laetitia Gambotti, Gilles Grimon, Aurélie Kas, Nathalie Costedoat-Chalumeau, Patrice Cacoub, Dan Toledano, Philippe Cluzel, Jean-Charles Piette, and Zahir Amoura..... 1193

Erratum

Data Appearing Under Incorrect Headings in Article by Ding et al (Arthritis Rheum, January 2009)..... 1200

Letters

Do Behcet's Syndrome Patients With Acne and Arthritis Comprise a True Subset? Comment on the Article by Hatemi et al

R. Priori, F. Ceccarelli, S. Milani, L. Testaverde, M. Accorinti, and G. Valesini..... 1201

Expanded Role for Interleukin-17 in Lyme Arthritis: Comment on the Article by Codolo et al

Dean T. Nardelli and Ronald F. Schell..... 1202

The Use of Glucocorticoids in Preventing Joint Destruction: Comment on the Review by Schett et al

John R. Kirwan and Maarten Boers..... 1202

Reply

Georg Schett, Christian Stach, Jochen Zwerina, Reinhard Voll, and Bernhard Manger..... 1203

ACR Announcements

A17

VOLUME 60

MAY 2009

NO. 5

In This Issue A17

Special Articles

Editorial: Should Patients With Rheumatoid Arthritis Receive Statin Therapy?

Paul M Ridker and Daniel H. Solomon 1205

Review: The Dynamics of Macrophage Lineage Populations in Inflammatory and Autoimmune Diseases

John A. Hamilton and Paul P. Tak 1210

Rheumatoid Arthritis Clinical Studies

The Good Initial Response to Therapy With a Combination of Traditional Disease-Modifying Antirheumatic Drugs Is Sustained Over Time: The Eleven-Year Results of the Finnish Rheumatoid Arthritis Combination Therapy Trial

Vappu Rantalaiho, Markku Korpela, Pekka Hannonen, Hannu Kautiainen, Salme Järvenpää, Marjatta Leirisalo-Repo, Markku Hakala, Kari Puolakka, Heikki Julkunen, Rüitta Luosujärvi, and Timo Möttönen, for the FIN-RACo Trial Group 1222

Efficacy, Pharmacodynamics, and Safety of VX-702, a Novel p38 MAPK Inhibitor, in Rheumatoid Arthritis: Results of Two Randomized, Double-Blind, Placebo-Controlled Clinical Studies

Nemanja Damjanov, Robert S. Kauffman, and George T. Spencer-Green 1223

Rheumatoid Arthritis Joint Progression in Sustained Remission Is Determined by Disease Activity Levels Preceding the Period of Radiographic Assessment

D. Aletaha, J. Funovits, F. C. Breedveld, J. Sharp, O. Segurado, and J. S. Smolen 1242

Erratum

Error in Reported Number of Serious Adverse Events Leading to Death, in Table 3 of Article by

Keystone et al (Arthritis Rheum, November 2008) 1249

Rheumatoid Arthritis Basic Science Studies

The PRL -1149 G/T Polymorphism and Rheumatoid Arthritis Susceptibility

Yvonne C. Lee, Soumya Raychaudhuri, Jing Cui, Immaculata De Vivo, Bo Ding, Lars Alfredsson,

Leonid Padyukov, Karen H. Costenbader, Mark Seielstad, Robert R. Graham, Lars Klareskog, Peter K. Gregersen, Robert M. Plenge, and Elizabeth W. Karlson.....	1250
Confirmation of STAT4, IL2/IL21, and CTLA4 Polymorphisms in Rheumatoid Arthritis Nina A. Daha, Fina A. S. Kureeman, Rute B. Marques, Gerrie Stoeken-Rijssbergen, Willem Verduijn, Tom W. J. Huizinga, and René E. M. Toes.....	1255
Transmembrane BAFF From Rheumatoid Synoviocytes Requires Interleukin-6 to Induce the Expression of Recombination-Activating Gene in B Lymphocytes Caroline Rochas, Sophie Hillion, Alain Saraux, Rizgar A. Mageed, Pierre Youinou, Christophe Jamin, and Valérie Devauchelle	1261
The $\alpha 7$ Nicotinic Acetylcholine Receptor on Fibroblast-like Synoviocytes and in Synovial Tissue From Rheumatoid Arthritis Patients: A Possible Role for a Key Neurotransmitter in Synovial Inflammation Marjolein A. van Maanen, Susanne P. Stoof, Esmerij P. van der Zanden, Wouter J. de Jonge, Richard A. Janssen, David F. Fischer, Nick Vandeghinste, Reginald Brys, Margriet J. Vervoordeldonk, and Paul P. Tak	1272
Down-Regulation of Myeloid Cell Leukemia 1 by Epigallocatechin-3-Gallate Sensitizes Rheumatoid Arthritis Synovial Fibroblasts to Tumor Necrosis Factor α -Induced Apoptosis Salahuddin Ahmed, Matthew D. Silverman, Hubert Marotte, Kevin Kwan, Natalie Matusczak, and Alisa E. Koch.....	1282
MicroRNA-124a Is a Key Regulator of Proliferation and Monocyte Chemoattractant Protein 1 Secretion in Fibroblast-like Synoviocytes From Patients With Rheumatoid Arthritis Yuji Nakamachi, Seiji Kawano, Mariko Takenokuchi, Kunihiro Nishimura, Yoshitada Sakai, Takaaki Chin, Ryuichi Saura, Masahiro Kurosaka, and Shunichi Kumagai	1294
Cadherin 11 Promotes Invasive Behavior of Fibroblast-like Synoviocytes Hans P. Kiener, Birgit Niederreiter, David M. Lee, Esther Jimenez-Boj, Josef S. Smolen, and Michael B. Brenner	1305
Spondylarthritis	
Chlamydiae as Etiologic Agents in Chronic Undifferentiated Spondyloarthritis John D. Carter, Hervé C. Gérard, Luis R. Espinoza, Louis R. Ricca, Joanne Valeriano, Jessica Snelgrove, Cynthia Oszust, Frank B. Vasey, and Alan P. Hudson	1311
Association of a Specific ERAP1/ARTS1 Haplotype With Disease Susceptibility in Ankylosing Spondylitis W. P. Maksymowich, R. D. Inman, D. D. Gladman, J. P. Reeve, A. Pope, and P. Rahman	1317
Improvement of Lipid Profile Is Accompanied by Atheroprotective Alterations in High-Density Lipoprotein Composition Upon Tumor Necrosis Factor Blockade: A Prospective Cohort Study in Ankylosing Spondylitis I. C. van Eijk, M. K. de Vries, J. H. M. Levels, M. J. L. Peters, E. E. Huizer, B. A. C. Dijkmans, I. E. van der Horst-Bruinsma, B. P. C. Hazenberg, R. J. van de Stadt, G. J. Wolbink, and M. T. Nurmohamed	1324
Evaluation of the Diagnostic Utility of Spinal Magnetic Resonance Imaging in Axial Spondylarthritis A. N. Bennett, A. Rehman, E. M. A. Hensor, H. Marzo-Ortega, P. Emery, and D. McGonagle	1331
Clinical Images	
Cement Embolism Following Percutaneous Vertebroplasty Hyeok-Jae Ko, Kyung-Su Park, Chul-Soo Cho, and Ho-Youn Kim	1341
Experimental Arthritis	
Indoleamine 2,3 Dioxygenase-Mediated Tryptophan Catabolism Regulates Accumulation of Th1/Th17 Cells in the Joint in Collagen-Induced Arthritis Gabriel Criado, Egle Šimelyte, Julia J. Inglis, David Essex, and Richard O. Williams	1342
Important Role of Interleukin-3 in the Early Phase of Collagen-Induced Arthritis Hilke Brühl, Josef Cihak, Marianne Niedermeier, Andrea Denzel, Manuel Rodriguez Gomez, Yvonne Talke, Nicole Goebel, Jiří Plachý, Manfred Stangassinger, and Matthias Mack	1352
Clinical Images	
Gout Attack and Stiff Knee in an Airline Passenger in Economy Class Angel Checa and Carolyn Riester O'Connor	1361
Inflammation	
Induction of CCR2-Dependent Macrophage Accumulation by Oxidized Phospholipids in the Air-Pouch Model of Inflammation Alexandra Kadl, Elena Galkina, and Norbert Leitinger	1362
Osteoarthritis	
Association of Biomarkers With Pre-Radiographically Defined and Radiographically Defined Knee Osteoarthritis in a Population-Based Study Jolanda Cibere, Hongbin Zhang, Patrick Garnero, A. Robin Poole, Tatiana Lobanok, Tore Saxne,	

<i>Virginia B. Kraus, Amanda Way, Anona Thorne, Hubert Wong, Joel Singer, Jacek Kopec, Ali Guermazi, Charles Peterfy, Savvakis Nicolaou, Peter L. Munk, and John M. Esdaile</i>	1372
Serum Levels of Vitamin D, Sunlight Exposure, and Knee Cartilage Loss in Older Adults: The Tasmanian Older Adult Cohort Study	
<i>Changhai Ding, Flavia Cicuttini, Venkat Parameswaran, John Burgess, Steve Quinn, and Graeme Jones</i>	1381
Cartilage Repair in a Rat Model of Osteoarthritis Through Intraarticular Transplantation of Muscle-Derived Stem Cells Expressing Bone Morphogenetic Protein 4 and Soluble Flt-1	
<i>Tomoyuki Matsumoto, Gregory M. Cooper, Burhan Gharaibeh, Laura B. Meszaros, Guangheng Li, Arvydas Usas, Freddie H. Fu, and Johnny Huard</i>	1390
Cartilage	
Regulation of Autophagy in Human and Murine Cartilage: Hypoxia-Inducible Factor 2 Suppresses Chondrocyte Autophagy	
<i>Jolene Bohensky, Shawn P. Terkhorn, Theresa A. Freeman, Christopher S. Adams, Joseph A. Garcia, Irving M. Shapiro, and Vickram Srinivas</i>	1406
Methylation Status of CpG Islands in the Promoter Regions of Signature Genes During Chondrogenesis of Human Synovium-Derived Mesenchymal Stem Cells	
<i>Yoichi Ezura, Ichiro Sekiya, Hideyuki Koga, Takeshi Muneta, and Masaki Noda</i>	1416
Bone Biology	
Prevention of Glucocorticoid-Induced Bone Loss in Mice by Inhibition of RANKL	
<i>Lorenz C. Hofbauer, Ute Zeitz, Michael Schoppet, Monika Skalicky, Christiane Schüler, Marina Stolina, Paul J. Kostenuik, and Reinhold G. Erben</i>	1427
Altered Mineralization of Human Osteoarthritic Osteoblasts Is Attributable to Abnormal Type I Collagen Production	
<i>Denis Couchourel, Isabelle Aubry, Aline Delalandre, Martin Lavigne, Johanne Martel-Pelletier, Jean-Pierre Pelletier, and Daniel Lajeunesse</i>	1438
Oncostatin M-Induced CCL2 Transcription in Osteoblastic Cells Is Mediated by Multiple Levels of STAT-1 and STAT-3 Signaling: An Implication for the Pathogenesis of Arthritis	
<i>Sang-Heng Kok, Chi-Yuan Hong, Mark Yen-Ping Kuo, Chih-Chiang Wang, Kuo-Liang Hou, Yi-Ting Lin, Deborah L. Galson, and Sze-Kwan Lin</i>	1451
Clinical Images	
Oxalate Tophus	
<i>Michael Rozenbaum, Gleb Slobodin, Michael Lurie, and Itzhak Rosner</i>	1462
Systemic Lupus Erythematosus	
Activation of the Interferon-γ Signaling Pathway in Systemic Lupus Erythematosus Peripheral Blood Mononuclear Cells	
<i>Thomas Karonitsch, Eva Feierl, Carl Walter Steiner, Karolina Dalwigk, Adelheid Korb, Nikolaus Binder, Alfred Rapp, Günter Steiner, Clemens Scheinecker, Josef Smolen, and Martin Aringer</i>	1463
Th17 and Natural Treg Cell Population Dynamics in Systemic Lupus Erythematosus	
<i>Ji Yang, Yiwei Chu, Xue Yang, Di Gao, Lubing Zhu, Xinrong Yang, Linlin Wan, and Ming Li</i>	1472
The Sense of Smell in Systemic Lupus Erythematosus	
<i>Netta Shoenfeld, Nancy Agmon-Levin, Iveta Flitman-Katzevman, Daphna Paran, Bat-sheva Porat Katz, Shaye Kivity, Pnina Langevitz, Gisele Zandman-Goddard, and Yehuda Shoenfeld</i>	1484
Childhood Arthritis	
Gene Expression Profiling in Neutrophils From Children With Polyarticular Juvenile Idiopathic Arthritis	
<i>James N. Jarvis, Kaiyu Jiang, Mark Barton Frank, Nicholas Knowlton, Amita Aggarwal, Carol A. Wallace, Ryan McKee, Brad Chaser, Catherine Tung, Laura B. Smith, Julie L. McGhee, Yanmin Chen, Jeanette Osban, Kathleen M. O'Neil, and Michael Centola</i>	1488
Premature Atherosclerosis in Pediatric Systemic Lupus Erythematosus: Risk Factors for Increased Carotid Intima-Media Thickness in the Atherosclerosis Prevention in Pediatric Lupus Erythematosus Cohort	
<i>Laura E. Schanberg, Christy Sandborg, Huiman X. Barnhart, Stacy P. Ardoin, Eric Yow, Gregory W. Evans, Kelly L. Mieszkalski, Norman T. Ilowite, Anne Eberhard, Deborah M. Levy, Yukiko Kimura, Emily von Scheven, Earl Silverman, Suzanne L. Bowyer, Lynn Punaro, Nora G. Singer, David D. Sherry, Deborah McCurdy, Marissa Klein-Gitelman, Carol Wallace, Richard Silver, Linda Wagner-Weiner, Gloria C. Higgins, Hermine I. Brunner, Lawrence Jung, Jennifer B. Soep, and Ann Reed, for the Atherosclerosis Prevention in Pediatric Lupus Erythematosus Investigators</i>	1496
Systemic Sclerosis	
Induction of the Expression of Profibrotic Cytokines and Growth Factors in Normal Human Peripheral Blood Monocytes by Gadolinium Contrast Agents	
<i>Peter J. Wermuth, Francesco Del Galdo, and Sergio A. Jiménez</i>	1508

Histone Deacetylase 7, a Potential Target for the Antifibrotic Treatment of Systemic Sclerosis <i>Hossein Hemmatzad, Hanna Maciejewska Rodrigues, Britta Maurer, Fabia Brentano, Margarita Pileckyte, Jörg H. W. Distler, Renate E. Gay, Beat A. Michel, Steffen Gay, Lars C. Huber, Oliver Distler, and Astrid Jüngel</i>	1519
Regulation of Pulmonary Inflammation and Fibrosis Through Expression of Integrins $\alpha V\beta 3$ and $\alpha V\beta 5$ on Pulmonary T Lymphocytes <i>Irina G. Luzina, Nevins W. Todd, Natalia Nacu, Virginia Lockatell, Jung Choi, Laura K. Hummers, and Sergei P. Atamas</i>	1530
Clinical Images	
Podoconiosis: Foot Edema Resulting From Regional Geochemistry <i>Giuseppe Indolfi, Silvia Fontanazza, and Francesco Silenzi</i>	1539
Vasculitis	
Rituximab Is Effective in the Treatment of Refractory Ophthalmic Wegener's Granulomatosis <i>Simon R. J. Taylor, Alan D. Salama, Lavnish Joshi, Charles D. Pusey, and Susan L. Lightman</i>	1540
Coexpression of CD177 and Membrane Proteinase 3 on Neutrophils in Antineutrophil Cytoplasmic Autoantibody-Associated Systemic Vasculitis: Anti-Proteinase 3-Mediated Neutrophil Activation Is Independent of the Role of CD177-Expressing Neutrophils <i>N. Hu, J. Westra, M. G. Huitema, M. Bijl, E. Brouwer, C. A. Stegeman, P. Heeringa, P. C. Limburg, and C. G. M. Kallenberg</i>	1548
Generalized Wegener's Granulomatosis in an Immunocompetent Adult After Cytomegalovirus Mononucleosis and Bacterial Urinary Tract Infection <i>Stefania Varani, Antonio Mastroianni, Giada Frascaroli, Charlotte Tammik, Afsar Rahbar, Marta Christensson, Giada Rossini, Maria Paola Landini, and Cecilia Söderberg-Nauclér</i>	1558
Letters	
Association of Interleukin-1 Receptor Antagonist and Interleukin-6 Polymorphisms With Osteolysis After Total Hip Arthroplasty: Comment on the Article by Gordon et al <i>Jiri Gallo and Martin Petrek</i>	1563
Effect of Ciprofloxacin-Mediated Inhibition on Cell Proliferation in Rat Tendon Cells: Comment on the Article by Tsai et al <i>Bikash Medhi, Harjot Kaur, and Ajay Prakash</i>	1564
Reply <i>Wen-Chung Tsai and Jong-Hwei S. Pang</i>	1564
Mann-Whitney U Test and Kruskal-Wallis Test Should Be Used for Comparisons of Differences in Medians, Not Means: Comment on the Article by van der Helm-van Mil et al <i>Bin Zhang and Yuqing Zhang</i>	1565
Reply <i>A. H. M. van der Helm-van Mil, T. W. J. Huizinga, and K. Raza</i>	1565
Tocilizumab and Missed Personalized Medicine Opportunities for Patients With Rheumatoid Arthritis <i>Bruce H. Littman</i>	1565
ACR Announcements	A23

VOLUME 60

JUNE 2009

NO. 6

In This Issue	A13
Special Articles	
Editorial: Systemic Lupus Erythematosus: A Matter of Life and Death <i>David S. Pisetsky and Lars Rönnblom</i>	1567
Editorial: Interleukin-1 Receptor-Associated Kinase 4 Links Innate Immunity to the Pathogenesis of Rheumatoid Arthritis <i>Leo A. B. Joosten and Mihai G. Netea</i>	1571
Editorial: Changing Concepts in Familial Mediterranean Fever: Is It Possible to Have an Autosomal-Recessive Disease With Only One Mutation? <i>Seza Özen</i>	1575
Review: Cellular Immunity in Wegener's Granulomatosis: Characterizing T Lymphocytes <i>Annelies E. Berden, Cees G. M. Kallenberg, Caroline O. S. Savage, Benito A. Yard, Wayel H. Abdulahad, Emile de Heer, Jan A. Bruijn, and Ingeborg M. Bajema</i>	1578

Rheumatic Disease Risk

Risks of Rheumatic Diseases in First- and Second-Generation Immigrants in Sweden: A Nationwide Followup Study

Xinjun Li, Jan Sundquist, and Kristina Sundquist 1588

Clinical Images

Kienböck Disease Resulting From Local Corticosteroid Injections

Hyek-Jae Ko, Yang-Ree Kim, Kyung-Su Park, Chul-Soo Cho, and Ho-Youn Kim 1596

Rheumatoid Arthritis

Gene-Environment Interaction Between the DRB1 Shared Epitope and Smoking in the Risk of Anti-Citrullinated Protein Antibody-Positive Rheumatoid Arthritis: All Alleles Are Important

Emeli Lundström, Henrik Källberg, Lars Alfredsson, Lars Klareskog, and Leonid Padyukov 1597

Galectin 3 Induces a Distinctive Pattern of Cytokine and Chemokine Production in Rheumatoid Synovial Fibroblasts via Selective Signaling Pathways

Andrew Filer, Magdalena Bik, Greg N. Parsonage, John Fitton, Emily Trebilcock, Katherine Howlett, Michelle Cook, Karim Raza, David L. Simmons, Andrew M. C. Thomas, Mike Salmon,

Dagmar Scheel-Toellner, Janet M. Lord, Gabriel A. Rabinovich, and Christopher D. Buckley 1604

Intervention of an Inflammation Amplifier, Triggering Receptor Expressed on Myeloid Cells 1, for Treatment of Autoimmune Arthritis

Yousuke Murakami, Tohru Akahoshi, Naoko Aoki, Masayasu Toyomoto, Nobuyuki Miyasaka, and

Hitoshi Kohsaka 1615

The Relationship Between Focal Erosions and Generalized Osteoporosis in Postmenopausal Women With Rheumatoid Arthritis

Daniel H. Solomon, Joel S. Finkelstein, Nancy Shadick, Meryl S. LeBoff, Carl S. Winalski,

Margaret Stedman, Roberta Glass, M. Alan Brookhart, Michael E. Weinblatt, and Ellen M. Gravallese 1624

Induction of Complete and Sustained Remission of Rheumatoid Pachymeningitis by Rituximab

L. Schmid, M. Müller, T. Treumann, W. Arnold, B. Möller, D. Aeberli, and P. M. Villiger 1632

Spondylarthritis

HLA-B27-Restricted Antigen Presentation by Human Chondrocytes to CD8+ T Cells: Potential Contribution to Local Immunopathologic Processes in Ankylosing Spondylitis

Maren Kuhne, Ulrike Erben, Gundula Schulze-Tanzil, Dorothee Köhler, Peihua Wu, F. Jan Richter,

Thilo John, Andreas Radbruch, Joachim Sieper, and Heiner Appel 1635

Frequency and Phenotype of Peripheral Blood Th17 Cells in Ankylosing Spondylitis and Rheumatoid Arthritis

Hui Shen, Jane C. Goodall, and J. S. Hill Gaston 1647

Dramatic Efficacy of Infliximab in Cauda Equina Syndrome Complicating Ankylosing Spondylitis

Divi Corne, Valérie Devauchelle Pensec, Sandrine Jousse Joulin, and Alain Saraux 1657

Experimental Arthritis

The Critical Role of Kinase Activity of Interleukin-1 Receptor-Associated Kinase 4 in Animal Models of Joint Inflammation

Magdalena Koziczk-Holbro, Amanda Littlewood-Evans, Bernadette Pöllinger, Jiri Kovarik, Janet Dawson,

Gerhard Zenke, Christoph Burkhardt, Matthias Müller, and Hermann Gram 1661

Role of CTA1R7K-COL-DD as a Novel Therapeutic Mucosal Tolerance-Inducing Vector for Treatment of Collagen-Induced Arthritis

Annemarie Hasselberg, Karin Schön, Andrej Tarkowski, and Nils Lycke 1672

Autoimmune Regulator Controls T Cell Help for Pathogenetic Autoantibody Production in Collagen-Induced Arthritis

Ian K. Campbell, Sarah A. Kinkel, Sarah F. Drake, Annemarie van Nieuwenhuijze,

François-Xavier Hubert, David M. Tarlinton, William R. Heath, Hamish S. Scott, and Ian P. Wicks 1683

Clinical Images

Joint Involvement in Idiopathic Arterial Calcification of Infancy

Paola Feraco, Alberto Bazzocchi, and Valerio Scioscio 1693

Bone Biology

A Role for γ/δ T Cells in a Mouse Model of Fracture Healing

Nona T. Colburn, Kristien J. M. Zaal, Francis Wang, and Rocky S. Tuan 1694

Cartilage Biology

Expression and Modulation of Ghrelin O-Acyltransferase in Cultured Chondrocytes

Rodolfo Gómez, Francisca Lago, Juan J. Gómez-Reino, Carlos Dieguez, and Oreste Gualillo 1704

Osteoarthritis

Large-Scale Analysis of Association Between *GDF5* and *FRZB* Variants and Osteoarthritis of the Hip, Knee, and Hand
Evangelos Evangelou, Kay Chapman, Ingrid Meulenbelt, Fotini B. Karassa, John Loughlin, Andrew Carr, Michael Doherty, Sally Doherty, Juan J. Gómez-Reino, Antonio Gonzalez, Bjarni V. Halldorsson, Valdimar B. Hauksson, Albert Hofman, Deborah J. Hart, Shiro Ikegawa, Thorvaldur Ingvarsson, Qing Jiang, Ingileif Jónsdóttir, Helgi Jonsson, Hanneke J. M. Kerkhof, Margreet Kloppenburg, Nancy E. Lane, Jia Li, Rik J. Lories, Joyce B. J. van Meurs, Annu Nakkki, Michael C. Nevitt, Julio Rodriguez-Lopez, Dongquan Shi, P. Eline Slagboom, Kari Stefansson, Aspasia Tsezou, Gillian A. Wallis, Christopher M. Watson, Tim D. Spector, Andre G. Uitterlinden, Ana M. Valdes, and John P. A. Ioannidis 1710

Ligands for Retinoic Acid Receptors Are Elevated in Osteoarthritis and May Contribute to Pathologic Processes in the Osteoarthritic Joint

Mark R. Davies, Lyn Rosenbrier Ribeiro, Mark Downey-Jones, Maurice R. C. Needham, Caroline Oakley, and John Wardale 1722

Clinical Image

Physiologic Sacral Mass as Observed Using Magnetic Resonance Imaging
Kyung-Su Park, Chul-Soo Cho, and Ho-Youn Kim 1732

Systemic Lupus Erythematosus Basic Science Studies

Remnants of Secondarily Necrotic Cells Fuel Inflammation in Systemic Lupus Erythematosus
Luis E. Muñoz, Christina Janko, Gerhard E. Grossmayer, Benjamin Frey, Reinhard E. Voll, Peter Kern, Joachim R. Kalden, Georg Schett, Rainer Fietkau, Martin Herrmann, and Udo S. Gaipl 1733

Prolactin Alters the Mechanisms of B Cell Tolerance Induction

Subhrajit Saha, Juana Gonzalez, Gabriel Rosenfeld, Harold Keiser, and Elena Peeva 1743

Impaired Differentiation and Cytotoxicity of Natural Killer Cells in Systemic Lupus Erythematosus

Yong-Wook Park, Seung-Jung Kee, Young-Nan Cho, Eun-Hee Lee, Hwa-Youn Lee, Eun-Mi Kim, Min-Ho Shin, Jeong-Jin Park, Tae-Jong Kim, Shin-Seok Lee, Dae-Hyun Yoo, and Hyung-Sik Kang 1753

Time Course and Nature of Brain Atrophy in the MRL Mouse Model of Central Nervous System Lupus

John G. Sled, Shoshana Spring, Matthijs van Eede, Jason P. Lerch, Sangeeta Ullal, and Boris Sakic 1764

Systemic Lupus Erythematosus Clinical Studies

Decrease in Glomerulonephritis and Th1-Associated Autoantibody Production After Progesterone Treatment in NZB/NZW Mice

Grant C. Hughes, David Martin, Kang Zhang, Kelly L. Hudkins, Charles E. Alpers, Edward A. Clark, and Keith B. Elkon 1775

Neutralization of Interferon- α/β -Inducible Genes and Downstream Effect in a Phase I Trial of an Anti-Interferon- α Monoclonal Antibody in Systemic Lupus Erythematosus

Yihong Yao, Laura Richman, Brandon W. Higgs, Christopher A. Morehouse, Melissa de los Reyes, Philip Brohawn, Jianliang Zhang, Barbara White, Anthony J. Coyle, Peter A. Kiener, and Bahija Jallal 1785

Childhood Arthritis

NOD2-Associated Pediatric Granulomatous Arthritis, an Expanding Phenotype: Study of an International Registry and a National Cohort in Spain

Carlos D. Rosé, Juan I. Aróstegui, Tammy M. Martin, Graciela Espada, Lisabeth Scalzi, Jordi Yagüe, James T. Rosenbaum, Consuelo Modesto, María Cristina Arnal, Rosa Merino, Julia García-Consuegra, María Antonia Carballo Silva, and Carine H. Wouters 1797

Incomplete Penetrance of the *NOD2* E383K Substitution Among Members of a Pediatric Granulomatous Arthritis Pedigree

Frank T. Saulsbury, Carine H. Wouters, Tammy M. Martin, Carrie R. Austin, Trudy M. Doyle, Kelly A. Goodwin, and Carlos D. Rosé 1804

Autoantibodies to a 140-kd Protein in Juvenile Dermatomyositis Are Associated With Calcinosis

H. Gunawardena, L. R. Wedderburn, H. Chinoy, Z. E. Betteridge, J. North, W. E. R. Ollier, R. G. Cooper, C. V. Oddis, A. V. Ramanan, J. E. Davidson, and N. J. McHugh, for the Juvenile Dermatomyositis Research Group, UK and Ireland 1807

Elevated Serum Interferon- α Activity in Juvenile Dermatomyositis: Associations With Disease Activity at Diagnosis and After Thirty-Six Months of Therapy

Timothy B. Niewold, Silvia N. Kariuki, Gabrielle A. Morgan, Sheela Shrestha, and Lauren M. Pachman 1815

Complete and Sustained Remission of Juvenile Dermatomyositis Resulting From Aggressive Treatment

Susan Kim, Moussa El-Hallak, Fatma Dedeoglu, David Zurakowski, Robert C. Fuhlbrigge, and Robert P. Sundel 1825

Systemic Sclerosis

The Three-Year Incidence of Pulmonary Arterial Hypertension Associated With Systemic Sclerosis in a Multicenter Nationwide Longitudinal Study in France	1831
Eric Hachulla, Pascal de Groote, Virginie Gressin, Jean Sibilia, Elisabeth Diot, Patrick Carpentier, Luc Mounthou, Pierre-Yves Hatron, Patrick Jego, Yannick Allanore, Kiet Phong Tiep, Christian Agard, Anne Cosnes, Daniela Cirstea, Joël Constans, Dominique Farge, Jean-François Viallard, Jean-Robert Harle, Frédéric Pata, Bernard Imbert, André Kahan, Jean Cabane, Pierre Clerson, Loïc Guillemin, Marc Humbert, and the ItinérAIR-Sclérodermie Study Group.....	1831
Improved Endothelial Function After Endothelin Receptor Blockade in Patients With Systemic Sclerosis	
Carmine Cardillo, Francesca Schinzari, Domenico Melina, Nadia Mores, Silvia Bosello, Giusy Peluso, Angelo Zoli, and Gianfranco Ferraccioli	1840
Association of a Functional Polymorphism in the <i>IRF5</i> Region With Systemic Sclerosis in a Japanese Population	
Ikue Ito, Yasushi Kawaguchi, Aya Kawasaki, Minoru Hasegawa, Jun Ohashi, Koki Hikami, Manabu Kawamoto, Manabu Fujimoto, Kazuhiko Takehara, Shinichi Sato, Masako Hara, and Naoyuki Tsuchiya	1845

Clinical Images

Pseudorheumatoid Gout	
Gleb Slobodin, Michael Lurie, Itzhak Rosner, Majeed Odeh, and Michael Rozenbaum	1850
Autoinflammatory Disease	
Familial Mediterranean Fever With a Single <i>MEFV</i> Mutation: Where Is the Second Hit?	
Matthew G. Booty, Jae Jin Chae, Seth L. Masters, Elaine F. Remmers, Beverly Barham, Julie M. Le, Karyl S. Barron, Steve M. Holland, Daniel L. Kastner, and Ivona Aksentijevich.....	1851
Clinical Disease Among Patients Heterozygous for Familial Mediterranean Fever	
Dina Marek-Yagel, Yackov Berkun, Shai Padeh, Almogit Abu, Hake Reznik-Wolf, Avi Livneh, Mordechai Pras, and Elton Pras.....	1862

Letters

Re-Treatment of Rheumatoid Arthritis Patients Who Were Initial Nonresponders to Rituximab:	
Comment on the Article by Thurlings et al	
Edward M. Vital, Shouvik Dass, Maya H. Buch, Andrew C. Rawstron, Frederique Ponchel, Dennis McGonagle, and Paul Emery	1867
Reply	
R. M. Thurlings, D. M. Gerlag, P. P. Tak, and K. Vos.....	1867
ACR Announcements	A20

VOLUME 60**JULY 2009****NO. 7**

In This Issue	A19
Special Articles	

Editorial: Fibroblast Growth Factor 2: A New Key Player in Osteoarthritis	
Jelena Gavrilovic	1869
Review: B Lymphocyte Cytokines and Rheumatic Autoimmune Disease	
Pierre Youinou, Taher E. Taher, Jacques-Olivier Pers, Rizgar A. Mageed, and Yves Renaudineau	1873
Special Article: International Rheumatology Networking: The 2008 American College of Rheumatology/European League Against Rheumatism Exchange Program	
Axel J. Hueber, Jörg H. W. Distler, and Ruth D. E. Fritsch-Stork	1881

Rheumatoid Arthritis Clinical Studies

Risk of Tuberculosis Is Higher With Anti-Tumor Necrosis Factor Monoclonal Antibody Therapy Than With Soluble Tumor Necrosis Factor Receptor Therapy: The Three-Year Prospective French Research Axed on Tolerance of Biotherapies Registry	
F. Tubach, D. Salmon, P. Ravaud, Y. Allanore, P. Goupille, M. Bréban, B. Pallot-Prades, S. Pouplin, A. Sacchi, R. M. Chichemanian, S. Bretagne, D. Emilie, M. Lemann, O. Lortholary, and X. Mariette, for the Research Axed on Tolerance of Biotherapies Group	1884
The Safety and Efficacy of a JAK Inhibitor in Patients With Active Rheumatoid Arthritis: Results of a Double-Blind, Placebo-Controlled Phase IIa Trial of Three Dosage Levels of CP-690,550 Versus Placebo	
Joel M. Kremer, Bradley J. Bloom, Ferdinand C. Breedveld, John H. Coombs, Mark P. Fletcher, David Gruben, Sriram Krishnaswami, Rubén Burgos-Vargas, Bethanie Wilkinson, Cristiano A. F. Zerbini, and Samuel H. Zwillich.....	1895

Adipocytokines Are Associated With Radiographic Joint Damage in Rheumatoid Arthritis Young Hee Rho, Joseph Solus, Tuulikki Sokka, Annette Oeser, Cecilia P. Chung, Tebeb Gebretsadik, Ayumi Shintani, Theodore Pincus, and C. Michael Stein.....	1906
Disease Remission State in Patients Treated With the Combination of Tumor Necrosis Factor Blockade and Methotrexate or With Disease-Modifying Antirheumatic Drugs: A Clinical and Imaging Comparative Study Benazir Saleem, Andrew K. Brown, Helen Keen, Sharmin Nizam, Jane Freeston, Zunaid Karim, Mark Quinn, Richard Wakefield, Elizabeth Hensor, Philip G. Conaghan, and Paul Emery.....	1915
Rheumatoid Arthritis Basic Science Studies	
Anti-Cyclic Citrullinated Peptide Antibodies From Rheumatoid Arthritis Patients Activate Complement via Both the Classical and Alternative Pathways L. A. Trouw, E. M. Haisma, E. W. N. Levarht, D. van der Woude, A. Ioan-Facsinay, M. R. Daha, T. W. J. Huizinga, and R. E. Toes	1923
Induction of CCL13 Expression in Synovial Fibroblasts Highlights a Significant Role of Oncostatin M in Rheumatoid Arthritis Christoph Hintzen, Saskia Quaiser, Thomas Pap, Peter C. Heinrich, and Heike M. Hermanns	1932
Alterations of the Synovial T Cell Repertoire in Anti-Citrullinated Protein Antibody-Positive Rheumatoid Arthritis Tineke Cantaert, Sophie Brouard, Rogier M. Thurlings, Annaick Pallier, Gabriela Franco Salinas, Christophe Braud, Paul L. Klarenbeek, Niek de Vries, Yiping Zhang, Jean-Paul Souillou, Paul P. Tak, and Dominique Baeten.....	1944
Role of Osteopontin in Induction of Monocyte Chemoattractant Protein 1 and Macrophage Inflammatory Protein 1 β Through the NF- κ B and MAPK Pathways in Rheumatoid Arthritis Wenxin Zheng, Runsheng Li, Heng Pan, Dongyi He, Rong Xu, Taylor B. Guo, Yajun Guo, and Jingwu Z. Zhang	1957
Pan-DR-Binding Hsp60 Self Epitopes Induce an Interleukin-10-Mediated Immune Response in Rheumatoid Arthritis Huib de Jong, Floris F. P. Lafeber, Wilco de Jager, Margje H. Haverkamp, Wietse Kuis, Johannes W. J. Bijlsma, Berent J. Prakken, and Salvatore Albani	1966
Spondylarthritis	
Spondylarthritis in HLA-B27/Human β_2 -Microglobulin-Transgenic Rats Is Not Prevented by Lack of CD8 Joel D. Taurog, Martha L. Dorris, Nimman Satumtira, Tri M. Tran, Rohit Sharma, Ralf Dressel, Jens van den Brandt, and Holger M. Reichardt	1977
Enthesis Inflammation in Recurrent Acute Anterior Uveitis Without Spondylarthritis Santiago Muñoz-Fernández, Eugenio de Miguel, Tatiana Cobo-Ibáñez, Rosario Madero, Antonio Ferreira, M. Ventura Hidalgo, Armelle Schlincker, and Emilio Martín-Mola	1985
Sjögren's Syndrome	
The CGGGG Insertion/Deletion Polymorphism of the <i>IRF5</i> Promoter Is a Strong Risk Factor for Primary Sjögren's Syndrome Corinne Miceli-Richard, Nicolas Gestermann, Marc Ittah, Emmanuelle Comets, Pascale Loiseau, Xavier Puechal, Eric Hachulla, Jacques-Eric Gottenberg, Pierre Lebon, Laurent Becquemont, and Xavier Mariette	1991
Experimental Arthritis	
Transgenic Disruption of Glucocorticoid Signaling in Mature Osteoblasts and Osteocytes Attenuates K/BxN Mouse Serum-Induced Arthritis In Vivo Frank Buttgereit, Hong Zhou, Robert Kalak, Timo Gaber, Cornelia M. Spies, Dörte Huscher, Ranier H. Straub, James Modzelewski, Colin R. Dunstan, and Markus J. Seibel.....	1998
Osteoarthritis	
A New Class of Potent Matrix Metalloproteinase 13 Inhibitors for Potential Treatment of Osteoarthritis: Evidence of Histologic and Clinical Efficacy Without Musculoskeletal Toxicity in Rat Models Vijaykumar M. Baragi, Gabriel Becher, Alison M. Bendele, Ralf Biesinger, Harald Bluhm, Jürgen Boer, Hongbo Deng, Rory Dodd, Michael Essers, Tim Feuerstein, Brian M. Gallagher, Jr., Christian Gege, Matthias Hochgürtel, Michael Hofmann, Andreas Jaworski, Lixia Jin, Andrew Kiely, Brian Korniski, Heiko Kroth, Darrell Nix, Bert Nolte, Dorothea Piecha, Timothy S. Powers, Frank Richter, Matthias Schneider, Christoph Steeneck, Irving Sucholeiki, Arthur Taveras, Andreas Timmermann, Joshua Van Veldhuizen, Juergen Weik, Xinyuan Wu, and Bing Xia	2008
Fibroblast Growth Factor 2 Is an Intrinsic Chondroprotective Agent That Suppresses ADAMTS-5 and Delays Cartilage Degradation in Murine Osteoarthritis Shi-Lu Chia, Yasunobu Sawaji, Annika Burleigh, Celia McLean, Julia Inglis, Jeremy Saklatvala, and Tonia Vincent	2019

Changes in Proximal Femoral Mineral Geometry Precede the Onset of Radiographic Hip Osteoarthritis: The Study of Osteoporotic Fractures	
<i>M. K. Javaid, N. E. Lane, D. C. Mackey, L.-Y. Lui, N. K. Arden, T. J. Beck, M. C. Hochberg, and M. C. Nevitt</i>	2028
Interleukin-6 Is a Significant Predictor of Radiographic Knee Osteoarthritis: The Chingford Study	
<i>Gregory Livshits, Guangju Zhai, Deborah J. Hart, Bernet S. Kato, Huizhong Wang, Frances M. K. Williams, and Tim D. Spector</i>	2037
Variation at the ANP32A Gene Is Associated With Risk of Hip Osteoarthritis in Women	
<i>Ana M. Valdes, Rik J. Lories, Joyce B. van Meurs, Hanneke Kerkhof, Sally Doherty, Albert Hofman, Deborah J. Hart, Feng Zhang, Frank P. Luyten, Andre G. Uitterlinden, Michael Doherty, and Tim D. Spector</i>	2046
Functional Analysis of the Osteoarthritis Susceptibility-Associated GDF5 Regulatory Polymorphism	
<i>Rainer J. Egli, Lorraine Southam, James M. Wilkins, Inken Lorenzen, Manuel Pombo-Suarez, Antonio Gonzalez, Andrew Carr, Kay Chapman, and John Loughlin</i>	2055
Orthopedics	
The Small Ubiquitin-like Modifier Mediates the Resistance of Prosthesis-Loosening Fibroblast-like Synoviocytes Against Fas-Induced Apoptosis	
<i>Ingmar Meinecke, Géza Pap, Heidi Mendoza, Steffen Drange, Stephan Ender, Simon Strietholt, Renate E. Gay, Christine Seyfert, Barbara Ink, Steffen Gay, Thomas Pap, and Marvin A. Peters</i>	2065
Systemic Lupus Erythematosus	
Anti-DNA Antibody Induction of Protein Kinase C Phosphorylation and Fibronectin Synthesis in Human and Murine Lupus and the Effect of Mycophenolic Acid	
<i>Susan Yung, Qing Zhang, Chen Zhu Zhang, Kwok Wah Chan, Sing Leung Lui, and Tak Mao Chan</i>	2071
Systemic Activation of the Immune System Induces Aberrant BAFF and APRIL Expression in B Cells in Patients With Systemic Lupus Erythematosus	
<i>Van Trung Chu, Philipp Enghard, Stefanie Schürer, Gudrun Steinhauser, Birgit Rudolph, Gabriela Riemekasten, and Claudia Berek</i>	2083
Relationship Between Elevated Cerebrospinal Fluid Levels of Plasminogen Activator Inhibitor 1 and Neuronal Destruction in Patients With Neuropsychiatric Systemic Lupus Erythematosus	
<i>Jakub Kwieciński, Marcin Klak, Estelle Trysberg, Kaj Blennow, Andrej Tarkowski, and Tao Jin</i>	2094
Childhood Arthritis	
Subtype-Specific Peripheral Blood Gene Expression Profiles in Recent-Onset Juvenile Idiopathic Arthritis	
<i>Michael G. Barnes, Alexei A. Grom, Susan D. Thompson, Thomas A. Griffin, Paul Pavlidis, Lukasz Itert, Ndate Fall, Dawn Paxson Sowders, Claas H. Hinze, Bruce J. Aronow, Lorie K. Luyrink, Shweta Srivastava, Norman T. Ilowite, Beth S. Gottlieb, Judyann C. Olson, David D. Sherry, David N. Glass, and Robert A. Colbert</i>	2102
Gene Expression Signatures in Polyarticular Juvenile Idiopathic Arthritis Demonstrate Disease Heterogeneity and Offer a Molecular Classification of Disease Subsets	
<i>Thomas A. Griffin, Michael G. Barnes, Norman T. Ilowite, Judyann C. Olson, David D. Sherry, Beth S. Gottlieb, Bruce J. Aronow, Paul Pavlidis, Claas H. Hinze, Sherry Thornton, Susan D. Thompson, Alexei A. Grom, Robert A. Colbert, and David N. Glass</i>	2113
Variants in TNFAIP3, STAT4, and C12orf30 Loci Associated With Multiple Autoimmune Diseases Are Also Associated With Juvenile Idiopathic Arthritis	
<i>Sampath Prahalad, Sterling Hansen, April Whiting, Stephen L. Guthery, Bronte Clifford, Bernadette McNally, Andrew S. Zeft, John F. Bohnsack, and Lynn B. Jorde</i>	2124
Intravenous Immunoglobulin and Salicylate Differentially Modulate Pathogenic Processes Leading to Vascular Damage in a Model of Kawasaki Disease	
<i>Andrew C. Lau, Trang T. Duong, Shinya Ito, and Rae S. M. Yeung</i>	2131
Systemic Sclerosis	
Pivotal Role of Connective Tissue Growth Factor in Lung Fibrosis: MAPK-Dependent Transcriptional Activation of Type I Collagen	
<i>Markella Ponticos, Alan M. Holmes, Xu Shi-wen, Patricia Leoni, Korsa Khan, Vineeth S. Rajkumar, Rachel K. Hoyles, George Bou-Gharios, Carol M. Black, Christopher P. Denton, David J. Abraham, Andrew Leask, and Gisela E. Lindahl</i>	2142
Vasculitis	
A Multicenter Survey of Rituximab Therapy for Refractory Antineutrophil Cytoplasmic Antibody-Associated Vasculitis	
<i>Rachel B. Jones, Alastair J. Ferraro, Afzal N. Chaudhry, Paul Brogan, Alan D. Salama, Kenneth G. C. Smith, Caroline O. S. Savage, and David R. W. Jayne</i>	2156

Clinical Image	
Cerebral Amyloid Angiopathy <i>Chien-Hsueh Tung, Chih-En Tseng, and Ning-Sheng Lai</i>	2168
Fibromyalgia	
Association of Adrenergic Receptor Gene Polymorphisms With Different Fibromyalgia Syndrome Domains <i>Gilberto Vargas-Alarcón, José-Manuel Fragoso, David Cruz-Robles, Angélica Vargas, Aline Martinez, José-Ignacio Lao-Villadóniga, Ferrán García-Fructuoso, Maite Vallejo, and Manuel Martínez-Lavín</i>	2169
Lyme Arthritis	
Analysis of <i>Borrelia burgdorferi</i> Genotypes in Patients With Lyme Arthritis: High Frequency of Ribosomal RNA Intergenic Spacer Type 1 Strains in Antibiotic-Refractory Arthritis <i>Kathryn L. Jones, Gail A. McHugh, Lisa J. Glickstein, and Allen C. Steere</i>	2174
Myositis	
Characterization and Peripheral Blood Biomarker Assessment of Anti-Jo-1 Antibody-Positive Interstitial Lung Disease <i>Thomas J. Richards, Aaron Eggebeen, Kevin Gibson, Samuel Yousem, Carl Fuhrman, Bernadette R. Gochuico, Noreen Fertig, Chester V. Oddis, Naftali Kaminski, Ivan O. Rosas, and Dana P. Ascherman</i>	2183
RNA Helicase Encoded by Melanoma Differentiation-Associated Gene 5 Is a Major Autoantigen in Patients With Clinically Amyopathic Dermatomyositis: Association With Rapidly Progressive Interstitial Lung Disease <i>Shinji Sato, Kana Hoshino, Takashi Satoh, Tomonobu Fujita, Yutaka Kawakami, Takashi Fujita, and Masataka Kuwana</i>	2193
Gout	
Severe Gouty Arthritis and Mild Neurologic Symptoms Due to F199C, a Newly Identified Variant of the Hypoxanthine Guanine Phosphoribosyltransferase <i>Hang-Kong Ea, Thomas Bardin, H. A. Jinnah, Bernard Aral, Frédéric Lioté, and Irène Ceballos-Picot</i>	2201
Letters	
Reply to Letter by Nardelli and Schell Commenting on the Pathogenesis of Lyme Arthritis <i>Mario M. D'Elios, Gaia Codolo, and Marina de Bernard</i>	2205
Mortality in Rheumatoid Arthritis Patients With Heart Failure: Comment on the Article by Davis et al <i>Sandro Parrotto</i>	2206
Reply <i>John M. Davis III, Véronique L. Roger, Cynthia S. Crowson, Hilal Maradit Kremers, Terry M. Therneau, and Sherine E. Gabriel</i>	2206
Challenges in Mapping Non-HLA-DRB1 Major Histocompatibility Genes in Rheumatoid Arthritis: Comment on the Article by Vignal et al <i>Matthew Brown, Julia Newton, Sinéad M. Harney, and Paul Wordsworth</i>	2207
Reply <i>Charlotte Vignal, Aruna T. Bansal, David J. Balding, Michael H. Binks, Marion C. Dickson, Doug S. Montgomery, and Anthony G. Wilson</i>	2207
The Clinical Relevance of a Prediction Rule for Disease Outcome in Patients With Undifferentiated Arthritis: Comment on the Article by van der Helm-van Mil et al <i>H. Visser, J. M. W. Hazes, and J. Luime</i>	2208
Reply <i>A. H. M. van der Helm-van Mil and T. W. J. Huizinga</i>	2209
Erratum	
Error in Author Name in Clinical Image by Feraco et al (Arthritis Rheum, June 2009)	2210
ACR Announcements	A21

VOLUME 60

AUGUST 2009

NO. 8

In This Issue	A17
Special Articles	
Editorial: Anti-Cyclic Citrullinated Peptide Testing for the Diagnosis of Rheumatoid Arthritis and the Quest for Improved Sensitivity and Predictive Value <i>Marc C. Levesque, Zhijie Zhou, and Larry W. Moreland</i>	2211

Editorial: Apoptotic Cell Blebs: Repositories of Autoantigens and Contributors to Immune Context Tomeka Suber and Antony Rosen	2216
Pharmacology	
Hypoxia and Glucocorticoid Signaling Converge to Regulate Macrophage Migration Inhibitory Factor Gene Expression <i>Laura M. Elsby, Rachelle Donn, Zaynab Alourfi, Laura M. Green, Elaine Beaulieu, and David W. Ray</i>	2220
Rheumatoid Arthritis	
Value of Anti-Modified Citrullinated Vimentin and Third-Generation Anti-Cyclic Citrullinated Peptide Compared With Second-Generation Anti-Cyclic Citrullinated Peptide and Rheumatoid Factor in Predicting Disease Outcome in Undifferentiated Arthritis and Rheumatoid Arthritis <i>Michael P. M. van der Linden, Diane van der Woude, Andreea Ioan-Facsinay, E. W. Nivine Levarht, Gerrie Stoeken-Rijsbergen, Tom W. J. Huizinga, René E. M. Toes, and Annette H. M. van der Helm-van Mil</i>	2232
Association of a Single-Nucleotide Polymorphism in <i>CD40</i> With the Rate of Joint Destruction in Rheumatoid Arthritis <i>Michael P. M. van der Linden, Anouk L. Feitsma, Saskia le Cessie, Marlena Kern, Lina M. Olsson, Soumya Raychaudhuri, Ann B. Begovich, Monica Chang, Joseph J. Catanese, Fina A. S. Kurreeman, Jessica van Nies, Désirée M. van der Heijde, Peter K. Gregersen, Tom W. J. Huizinga, René E. M. Toes, and Annette H. M. van der Helm-van Mil</i>	2242
Determinants of Red Blood Cell Methotrexate Polyglutamate Concentrations in Rheumatoid Arthritis Patients Receiving Long-Term Methotrexate Treatment <i>Lisa K. Stamp, John L. O'Donnell, Peter T. Chapman, Mei Zhang, Christopher Frampton, Jill James, and Murray L. Barclay</i>	2248
Methotrexate Catabolism to 7-Hydroxymethotrexate in Rheumatoid Arthritis Alters Drug Efficacy and Retention and Is Reduced by Folic Acid Supplementation <i>Joseph E. Baggott and Sarah L. Morgan</i>	2257
Prevalence of and Predictive Factors for Sustained Disease-Modifying Antirheumatic Drug-Free Remission in Rheumatoid Arthritis: Results From Two Large Early Arthritis Cohorts <i>Diane van der Woude, Adam Young, Keeranur Jayakumar, Bart J. Mertens, René E. M. Toes, Désirée van der Heijde, Tom W. J. Huizinga, and Annette H. M. van der Helm-van Mil</i>	2262
Golimumab, a Human Anti-Tumor Necrosis Factor α Monoclonal Antibody, Injected Subcutaneously Every Four Weeks in Methotrexate-Naïve Patients With Active Rheumatoid Arthritis: Twenty-Four-Week Results of a Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study of Golimumab Before Methotrexate as First-Line Therapy for Early-Onset Rheumatoid Arthritis <i>Paul Emery, Roy M. Fleischmann, Larry W. Moreland, Elizabeth C. Hsia, Ingrid Strusberg, Patrick Durez, Peter Nash, Eric Jason B. Amante, Melvin Churchill, Won Park, Bernardo Antonio Pons-Estel, Mittie K. Doyle, Sudha Visvanathan, Weichun Xu, and Mahboob U. Rahman</i>	2272
Delayed Acquisition of Somatic Hypermutations in Repopulated IgD+CD27+ Memory B Cell Receptors After Rituximab Treatment <i>Khalid Muhammad, Petra Roll, Hermann Einsele, Thomas Dörner, and Hans-Peter Tony</i>	2284
Gamma/Delta T Cells Are the Predominant Source of Interleukin-17 in Affected Joints in Collagen-Induced Arthritis, but Not in Rheumatoid Arthritis <i>Yoshinaga Ito, Takashi Usui, Shio Kobayashi, Mikiko Iguchi-Hashimoto, Hiromu Ito, Hiroyuki Yoshitomi, Takashi Nakamura, Masakazu Shimizu, Daisuke Kawabata, Naoichiro Yukawa, Motomu Hashimoto, Noriko Sakaguchi, Shimon Sakaguchi, Hajime Yoshifiji, Takaki Nojima, Koichiro Ohmura, Takao Fujii, and Tsuneyo Mimori</i>	2294
Experimental Arthritis	
Mouse Dendritic Cells Matured by Ingestion of Apoptotic Blebs Induce T Cells to Produce Interleukin-17 <i>Justin H. Fransen, Luuk B. Hilbrands, Jurjen Ruben, Monique Stoffels, Gosse J. Adema, Johan van der Vlag, and Jo H. Berden</i>	2304
Abrogation of Antibody-Induced Arthritis in Mice by a Self-Activating Viridin Prodrug and Association With Impaired Neutrophil and Endothelial Cell Function <i>Lars Stangenberg, Chris Ellson, Virna Cortez-Retamozo, Adriana Ortiz-Lopez, Hushan Yuan, Joseph Blois, Ralph A. Smith, Michael B. Yaffe, Ralph Weissleder, Christophe Benoist, Diane Mathis, Lee Josephson, and Umar Mahmood</i>	2314
Cartilage Biology	
Changes in Surface Markers of Human Mesenchymal Stem Cells During the Chondrogenic Differentiation and Dedifferentiation Processes In Vitro <i>Hyun Jung Lee, Byung Hyune Choi, Byoung-Hyun Min, and So Ra Park</i>	2325

Profiling MicroRNA Expression in Bovine Articular Cartilage and Implications for Mechanotransduction Walter Dunn, Grayson DuRaine, and A. Hari Reddi.....	2333
Osteoarthritis	
Role of p53 in Human Chondrocyte Apoptosis in Response to Shear Strain Shingo Hashimoto, Takayuki Nishiyama, Shinya Hayashi, Takaaki Fujishiro, Ken Takebe, Noriyuki Kanzaki, Ryosuke Kuroda, and Masahiro Kurosaka.....	2340
Regulation of Plasminogen Activator Inhibitor 1 Expression in Human Osteoarthritic Chondrocytes by Fluid Shear Stress: Role of Protein Kinase Cα Chih-Chang Yeh, Hsin-I Chang, Jui-Kun Chiang, Wang-Ting Tsai, Li-Ming Chen, Chean-Ping Wu, Shu Chien, and Cheng-Nan Chen.....	2350
Accelerated Development of Aging-Associated and Instability-Induced Osteoarthritis in Osteopontin-Deficient Mice Yuichiro Matsui, Norimasa Iwasaki, Shigeyuki Kon, Daisuke Takahashi, Junko Morimoto, Yutaka Matsui, David T. Denhardt, Susan Rittling, Akio Minami, and Toshimitsu Uede	2362
Down-Regulation of Cathepsin K in Synovium Leads to Progression of Osteoarthritis in Rabbits Daisuke Takahashi, Norimasa Iwasaki, Shigeyuki Kon, Yuichiro Matsui, Tokifumi Majima, Akio Minami, and Toshimitsu Uede	2372
Vascular Cell Adhesion Molecule 1 as a Predictor of Severe Osteoarthritis of the Hip and Knee Joints Georg Schett, Stefan Kiechl, Enzo Bonora, Jochen Zwerina, Agnes Mayr, Roland Axmann, Siegfried Weger, Friedrich Oberholzer, Rolando Lorenzini, and Johann Willeit	2381
Childhood Arthritis	
The Role of Neutrophil Apoptosis in Juvenile-Onset Systemic Lupus Erythematosus Angela Midgley, Zoe McLaren, Robert J. Moots, Steven W. Edwards, and Michael W. Beresford	2390
Systemic Lupus Erythematosus Basic Science Studies	
A Polymorphism Within <i>IL21R</i> Confers Risk for Systemic Lupus Erythematosus Ryan Webb, Joan T. Merrill, Jennifer A. Kelly, Andrea Sestak, Kenneth M. Kaufman, Carl D. Langefeld, Julie Ziegler, Robert P. Kimberly, Jeffrey C. Edberg, Rosalind Ramsey-Goldman, Michelle Petri, John D. Reveille, Graciela S. Alarcón, Luis M. Vilá, Marta E. Alarcón-Riquelme, Judith A. James, Gary S. Gilkeson, Chaim O. Jacob, Kathy L. Moser, Patrick M. Gaffney, Timothy J. Vyse, Swapan K. Nath, Peter Lipsky, John B. Harley, and Amr H. Sawalha	2402
Fcγ Receptor-Dependent Expansion of a Hyperactive Monocyte Subset in Lupus-Prone Mice Marie-Laure Santiago-Raber, Hirofumi Amano, Eri Amano, Lucie Baudino, Masako Otani, Qingshun Lin, Falk Nimmerjahn, J. Sjef Verbeek, Jeffrey V. Ravetch, Yoshinari Takasaki, Sachiko Hirose, and Shozo Izui	2408
Regulation of the Interferon-α Production Induced by RNA-Containing Immune Complexes in Plasmacytoid Dendritic Cells Maija-Leena Eloranta, Tanja Lövgren, Doreen Finke, Linda Mathsson, Johan Rönnelid, Berthold Kastner, Gunnar V. Alm, and Lars Rönnblom.....	2418
Systemic Lupus Erythematosus Clinical Studies	
Dysfunctional Proinflammatory High-Density Lipoproteins Confer Increased Risk of Atherosclerosis in Women With Systemic Lupus Erythematosus Maureen McMahon, Jennifer Grossman, Brian Skaggs, John FitzGerald, Lori Sahakian, Nagesh Ragavendra, Christina Charles-Schoeman, Karol Watson, Weng Kee Wong, Elizabeth Volkmann, Weiling Chen, Alan Gorn, George Karpouzas, Michael Weisman, Daniel J. Wallace, and Bevra H. Hahn ...	2428
Studies of Cell-Mediated Immune Responses to Influenza Vaccination in Systemic Lupus Erythematosus Albert Holvast, Sander van Assen, Aalzen de Haan, Anke Huckriede, Cornelis A. Benne, Johanna Westra, Abraham Palache, Jan Wilschut, Cees G. M. Kallenberg, and Marc Bijl.....	2438
European Population Substructure Is Associated With Mucocutaneous Manifestations and Autoantibody Production in Systemic Lupus Erythematosus Sharon A. Chung, Chao Tian, Kimberly E. Taylor, Annette T. Lee, Ward A. Ortmann, Geoffrey Hom, Robert R. Graham, Joanne Nititham, Jennifer A. Kelly, Jean Morrissey, Hui Wu, Hong Yin, Marta E. Alarcón-Riquelme, Betty P. Tsao, John B. Harley, Patrick M. Gaffney, Kathy L. Moser, Susan Manzi, Michelle Petri, Peter K. Gregersen, Carl D. Langefeld, Timothy W. Behrens, Michael F. Seldin, and Lindsey A. Criswell	2448
Antiphospholipid Syndrome	
The Effects of Phosphatidylserine-Dependent Antiprothrombin Antibody on Thrombin Generation Yoshie Sakai, Tatsuya Atsumi, Masahiro Ieko, Olga Amengual, Shin Furukawa, Akira Furusaki, Miyuki Bohgaki, Hiroshi Kataoka, Tetsuya Horita, Shinsuke Yasuda, and Takao Koike	2457
Association of <i>STAT4</i> and <i>BLK</i> , but Not <i>BANK1</i> or <i>IRF5</i> , With Primary Antiphospholipid Syndrome Hong Yin, Maria Orietta Borghi, Angélica M. Delgado-Vega, Angela Tincani, Pier-Luigi Meroni, and Marta E. Alarcón-Riquelme	2468

Systemic Sclerosis

STAT4 Is a Genetic Risk Factor for Systemic Sclerosis Having Additive Effects With *IRF5* on Disease Susceptibility and Related Pulmonary Fibrosis
P. Dieudé, M. Guedj, J. Wipff, B. Ruiz, E. Hachulla, E. Diot, B. Granel, J. Sibilia, K. Tieb, L. Mounthou, J. L. Cracowski, P. H. Carpentier, Z. Amoura, I. Fajard, J. Avouac, O. Meyer, A. Kahan, C. Boileau, and Y. Allanore 2472

Independent Association of Anti- β_2 -Glycoprotein I Antibodies With Macrovascular Disease and Mortality in Scleroderma Patients
Francesco Boin, Stefano Franchini, Elizabeth Colantuoni, Antony Rosen, Fredrick M. Wigley, and Livia Casciola-Rosen 2480

Course of the Modified Rodnan Skin Thickness Score in Systemic Sclerosis Clinical Trials: Analysis of Three Large Multicenter, Double-Blind, Randomized Controlled Trials
Sogol Amjadi, Paul Maranian, Daniel E. Furst, Philip J. Clements, Weng Kee Wong, Arnold E. Postlethwaite, Puja P. Khanna, and Dinesh Khanna, for the Investigators of the D-Penicillamine, Human Recombinant Relaxin, and Oral Bovine Type I Collagen Clinical Trials 2490

Myositis

Ultraviolet Radiation Intensity Predicts the Relative Distribution of Dermatomyositis and Anti-Mi-2 Autoantibodies in Women
Lori A. Love, Clarice R. Weinberg, D. Robert McConaughay, Chester V. Oddis, Thomas A. Medsger, Jr., John D. Reveille, Frank C. Arnett, Ira N. Targoff, and Frederick W. Miller 2499

Therapeutic Effects of Interleukin-6 Blockade in a Murine Model of Polymyositis That Does Not Require Interleukin-17A
Naoko Okiyama, Takahiko Sugihara, Yoichiro Iwakura, Hiroo Yokozeiki, Nobuyuki Miyasaka, and Hitoshi Kohsaka 2505

Amelioration of Alphavirus-Induced Arthritis and Myositis in a Mouse Model by Treatment With Bindarit, an Inhibitor of Monocyte Chemotactic Proteins
Nestor E. Rulli, Angelo Guglielmotti, Giorgina Mangano, Michael S. Rolph, Claudia Apicella, Ali Zaid, Andreas Suhrbier, and Suresh Mahalingam 2513

Sera From Anti-Jo-1-Positive Patients With Polymyositis and Interstitial Lung Disease Induce Expression of Intercellular Adhesion Molecule 1 in Human Lung Endothelial Cells
Sevim Barbasso Helmers, Pernilla Englund, Marianne Engström, Erik Åhlén, Maryam Fathi, Sabina Janciauskiene, Mikael Heimbürger, Johan Rönnelid, and Ingrid E. Lundberg 2524

Vasculitis

Efficacy and Tolerability of Rituximab With or Without PEGylated Interferon Alfa-2b Plus Ribavirin in Severe Hepatitis C Virus-Related Vasculitis: A Long-Term Followup Study of Thirty-Two Patients
Benjamin Terrier, David Saadoun, Damien Sène, Jérémie Sellam, Laurent Pérard, Brigitte Coppé, Alexandre Karras, François Blanc, Matthias Buchler, Emmanuelle Plaisier, Pascale Ghillani, Michelle Rosenzwajg, and Patrice Cacoub 2531

Errata

Error in Spelling of Author Name and Error in Terminology in Article by Tubach et al (Arthritis Rheum, July 2009), and Error in Title of Article by Meinecke et al (Arthritis Rheum, July 2009) 2540

Concise Communication

Anti-Adalimumab Antibodies in Rheumatoid Arthritis Patients Are Associated With Interleukin-10 Gene Polymorphisms
G. M. Bartelds, C. A. Wijbrandts, M. T. Nurmohamed, G. J. Wolbink, N. de Vries, P. P. Tak, B. A. C. Dijkmans, J. B. A. Crusius, and I. E. van der Horst-Bruinsma 2541

Clinical Images

Otalgia, an Unusual Complication of Sjögren's Syndrome
Yoshitaka Kunon, Akinobu Kakigi, and Tetsuro Sugiura 2542

Letters

Pathogenetic Mechanisms, New Drugs, and Old Problems in Idiopathic Recurrent Pericarditis: Comment on the Article by Picco et al
Antonio Brucato, Massimo Imazio, David Spodick, and Yehuda Adler 2543

Reply
Paolo Picco and Alberto Martini 2543

Interleukin-1 β Suppression in Blau Syndrome: Comment on the Article by Martin et al
Junya Masumoto, Takashi Yamazaki, Kouichi Ohta, Jun Nakayama, and Kazunaga Agematsu 2544

Using "Real Clinic" Definitions to Predict the Course of Juvenile Dermatomyositis: Comment on the Article by Stringer et al
Sirirat Charuvanij and Lori B. Tucker 2545

Reply		
Elizabeth Stringer and Brian Feldman	2546	
ACR Announcements	A21	

VOLUME 60

SEPTEMBER 2009

NO. 9

In This Issue	A24
Special Articles	
Editorial: Shared Symptoms in Rheumatic Diseases: a Blessing or a Curse? Tom W. J. Huizinga and Gerdur Gröndal	2547
Editorial: The Link Between Structural Damage and Pain in a Genetic Model of Osteoarthritis and Intervertebral Disc Degeneration: A Joint Misadventure Mary B. Goldring	2550
Rheumatoid Arthritis Clinical Studies	
Decline in Rheumatoid Vasculitis Prevalence Among US Veterans: A Retrospective Cross-Sectional Study Christie Bartels, Carolyn Bell, Ann Rosenthal, Kazuhiko Shinki, and Alan Bridges	2553
Rheumatoid Arthritis Does Not Share Most of the Newly Identified Systemic Lupus Erythematosus Genetic Factors Marian Suarez-Gestal, Manuel Calaza, Rebeca Dieguez-Gonzalez, Eva Perez-Pampin, Jose Luis Pablos, Federico Navarro, Javier Narvaez, Jose Luis Marenco, Gabriel Herrero-Beaumont, Benjamin Fernandez-Gutierrez, Jose Ramon Lamas, Arturo Rodriguez de la Serna, Ana Maria Ortiz, Luis Carreño, Juan D. Cañete, Rafael Caliz, Francisco J. Blanco, Alejandro Balsa, Juan J. Gomez-Reino, and Antonio Gonzalez	2558
Reevaluation of the Interaction Between HLA-DRB1 Shared Epitope Alleles, PTPN22, and Smoking in Determining Susceptibility to Autoantibody-Positive and Autoantibody-Negative Rheumatoid Arthritis in a Large UK Caucasian Population Ann W. Morgan, Wendy Thomson, Stephen G. Martin, Yorkshire Early Arthritis Register Consortium, Angela M. Carter, UK Rheumatoid Arthritis Genetics Consortium, Henry A. Erlich, Anne Barton, Lynne Hocking, David M. Reid, Pille Harrison, Paul Wordsworth, Sophia Steer, Jane Worthington, Paul Emery, Anthony G. Wilson, and Jennifer H. Barrett	2565
Changes in Distribution of the Printed ACR/ARHP Annual Scientific Meeting Abstract Supplement	2576
Rheumatoid Arthritis Basic Science Studies	
TRAF1 Polymorphisms Associated With Rheumatoid Arthritis Susceptibility in Asians and in Caucasians Tae-Un Han, So-Young Bang, Changwon Kang, and Sang-Cheol Bae	2577
Mathematical Modeling of the Circadian Rhythm of Key Neuroendocrine-Immune System Players in Rheumatoid Arthritis: A Systems Biology Approach Michael Meyer-Hermann, Marc Thilo Figge, and Rainer H. Straub	2585
Elevated Expression of Interleukin-7 Receptor in Inflamed Joints Mediates Interleukin-7-Induced Immune Activation in Rheumatoid Arthritis Sarita A. Y. Hartgring, Joel A. G. van Roon, Marion Wenting-van Wijk, Kim M. G. Jacobs, Zalima N. Jahangier, Cynthia R. Willis, Johannes W. J. Bijlsma, and Floris P. J. G. Lafeber	2595
Establishment of a Matrix-Associated Transepithelial Resistance Invasion Assay to Precisely Measure the Invasive Potential of Synovial Fibroblasts Christina Wunrau, Eva-Maria Schnaeker, Katharina Freyth, Noreen Pundt, Doreen Wendholt, Katja Neugebauer, Uwe Hansen, Thomas Pap, and Bernd Dankbar	2606
Outside-to-Inside Signaling Through Transmembrane Tumor Necrosis Factor Reverses Pathologic Interleukin-1 β Production and Deficient Apoptosis of Rheumatoid Arthritis Monocytes Undine Meusch, Manuela Rossol, Christoph Baerwald, Sunna Hauschildt, and Ulf Wagner	2612
Spondylarthritis	
Dendritic Cells From Spondylarthritis-Prone HLA-B27-Transgenic Rats Display Altered Cytoskeletal Dynamics, Class II Major Histocompatibility Complex Expression, and Viability Maarten Dhaenens, Ingrid Fert, Simon Glatigny, Saskia Haerinck, Cécile Poulain, Emmanuel Donnadieu, Cécile Hacquard-Bouder, Claudine André, Dirk Elewaut, Dieter Deforce, and Maxime Breban	2622
HLA-B27 Misfolding and the Unfolded Protein Response Augment Interleukin-23 Production and Are Associated With Th17 Activation in Transgenic Rats Monica L. DeLay, Matthew J. Turner, Erin I. Klenk, Judith A. Smith, Dawn P. Sowders, and Robert A. Colbert	2633

Experimental Arthritis

Tumor Necrosis Factor α and RANKL Blockade Cannot Halt Bony Spur Formation in Experimental Inflammatory Arthritis

Georg Schett, Marina Stolina, Denise Dwyer, Debra Zack, Stefan Uderhardt, Gerhard Krönke, Paul Kostenuik, and Ulrich Feige 2644

Liver X Receptor Agonist Promotes Articular Inflammation in Murine Collagen-Induced Arthritis

Darren L. Asquith, Ashley M. Miller, Axel J. Hueber, Heather J. McKinnon, Naveed Sattar, Gerry J. Graham, and Iain B. McInnes 2655

Inhibition of Lymphangiogenesis and Lymphatic Drainage via Vascular Endothelial Growth Factor Receptor 3 Blockade Increases the Severity of Inflammation in a Mouse Model of Chronic Inflammatory Arthritis

Ruolin Guo, Quan Zhou, Steven T. Proulx, Ronald Wood, Rui-Cheng Ji, Christopher T. Ritchlin, Bronislaw Pytowski, Zhenping Zhu, Yong-Jun Wang, Edward M. Schwarz, and Lianping Xing 2666

Induction of Apoptosis in the Synovium of Mice With Autoantibody-Mediated Arthritis by the Intraarticular Injection of Double-Stranded MicroRNA-15a

Yoshihiko Nagata, Tomoyuki Nakasa, Yu Mochizuki, Masakazu Ishikawa, Shigeru Miyaki, Hayatoshi Shibuya, Keiichiro Yamasaki, Nobuo Adachi, Hiroshi Asahara, and Mitsuo Ochi 2677

Decreased Physical Function and Increased Pain Sensitivity in Mice Deficient for Type IX Collagen

Kyle D. Allen, Timothy M. Griffin, Ramona M. Rodriguez, William C. Wetsel, Virginia B. Kraus, Janet L. Huebner, Lawrence M. Boyd, and Lori A. Setton 2684

Osteoarthritis

Calcification of Articular Cartilage in Human Osteoarthritis

M. Fuerst, J. Bertrand, L. Lammers, R. Dreier, F. Echtermeyer, Y. Nitschke, F. Rutsch, F. K. W. Schäfer, O. Niggemeyer, J. Steinhagen, C. H. Lohmann, T. Pap, and W. Rüther 2694

ADAM-8 Isolated From Human Osteoarthritic Chondrocytes Cleaves Fibronectin at Ala²⁷¹

Marc D. Zack, Anne-Marie Malfait, Adam P. Skepner, Matthew P. Yates, David W. Griggs, Troii Hall, Robert L. Hills, James T. Alston, Olga V. Nemirovskiy, Melissa R. Radabaugh, Joseph W. Leone, Elizabeth C. Arner, and Micky D. Tortorella 2704

Cartilage Biology

Role of Wnt-5A in Interleukin-1 β -Induced Matrix Metalloproteinase Expression in Rabbit Temporomandibular Joint Condylar Chondrocytes

Xianpeng Ge, Xuchen Ma, Juanhong Meng, Chenguang Zhang, Kangtao Ma, and Chunyan Zhou 2714

MicroRNA-140 Is Expressed in Differentiated Human Articular Chondrocytes and Modulates Interleukin-1 Responses

Shigeru Miyaki, Tomoyuki Nakasa, Shuhei Otsuki, Shawn P. Grogan, Reiji Higashiyama, Atsushi Inoue, Yoshio Kato, Tempei Sato, Martin K. Lotz, and Hiroshi Asahara 2723

SIRT1 Regulation of Apoptosis of Human Chondrocytes

Koji Takayama, Kazunari Ishida, Takehiko Matsushita, Norifumi Fujita, Shinya Hayashi, Ken Sasaki, Katsumasa Tei, Seiji Kubo, Tomoyuki Matsumoto, Hiroyuki Fujioka, Masahiro Kurosaka, and Ryosuke Kuroda 2731

Type II Collagen Levels Correlate With Mineralization by Articular Cartilage Vesicles

Brian Jubeck, Emily Muth, Claudia M. Gohr, and Ann K. Rosenthal 2741

Erratum

Error in Figure 1C Legend in Article by Barbasso Helmers et al (Arthritis Rheum, August 2009)

Bone Biology

Inhibition of Interleukin-6 Receptor Directly Blocks Osteoclast Formation In Vitro and In Vivo

Roland Axmann, Christina Böhm, Gerhard Krönke, Jochen Zwerina, Josef Smolen, and Georg Schett 2747

Systemic Lupus Erythematosus

Risk Factors and Impact of Recurrent Lupus Nephritis in Patients With Systemic Lupus Erythematosus

Undergoing Renal Transplantation: Data From a Single US Institution

Paula I. Burgos, Elizabeth L. Perkins, Guillermo J. Pons-Estel, Scott A. Kendrick, Jigna M. Liu, William T. Kendrick, William J. Cook, Bruce A. Julian, Graciela S. Alarcón, and Clifton E. Kew, II 2757

Regression of Systemic Lupus Erythematosus After Development of an Acquired Toll-like Receptor Signaling Defect and Antibody Deficiency

Marcella Visentini, Valentina Conti, Maria Cagliuso, Francesca Tinti, Giulia Siciliano, Amelia C. Trombetta, Anna Paola Mitterhofer, Massimo Fiorilli, and Isabella Quinti 2767

Clinical Images

The Multifaceted Pathogenesis of Polymyalgia Rheumatica/Giant Cell Arteritis

Dario Camellino, Gianmario Sambuceti, Silvia Morbelli, and Marco A. Cimmino 2771

Childhood Arthritis

Neutrophil Gelatinase-Associated Lipocalin Is a Predictor of the Course of Global and Renal Childhood-Onset Systemic Lupus Erythematosus Disease Activity
Claas H. Hinze, Michiko Suzuki, Marisa Klein-Gitelman, Murray H. Passo, Judyann Olson, Nora G. Singer, Kathleen A. Haines, Karen Onel, Kathleen O'Neil, Earl D. Silverman, Lori Tucker, Jun Ying, Prasad Devarajan, and Hermine I. Brunner 2772

Defective Phosphorylation of Interleukin-18 Receptor β Causes Impaired Natural Killer Cell Function in Systemic-Onset Juvenile Idiopathic Arthritis
Wilco de Jager, Sebastiaan J. Vastert, Jeffrey M. Beekman, Nico M. Wulffraat, Wietse Kuis, Paul J. Coffer, and Berent J. Prakken 2782

Long-Term Safety and Effectiveness of Etanercept in Children With Selected Categories of Juvenile Idiopathic Arthritis
E. H. Giannini, N. T. Ilowite, D. J. Lovell, C. A. Wallace, C. E. Rabinovich, A. Reiff, G. Higgins, B. Gottlieb, N. G. Singer, for the Pediatric Rheumatology Collaborative Study Group, Y. Chon, S.-L. Lin, and S. W. Baumgartner 2794

Systemic Sclerosis

Nuclear Autoantigen CENP-B Transactivation of the Epidermal Growth Factor Receptor via Chemokine Receptor 3 in Vascular Smooth Muscle Cells
Geneviève Robitaille, Marie-Soleil Christin, Isabelle Clément, Jean-Luc Senécal, and Yves Raymond 2805

Loss of $\beta 1$ Integrin in Mouse Fibroblasts Results in Resistance to Skin Scleroderma in a Mouse Model
Shangxi Liu, Mohit Kapoor, Christopher P. Denton, David J. Abraham, and Andrew Leask 2817

Loss of Peroxisome Proliferator-Activated Receptor γ in Mouse Fibroblasts Results in Increased Susceptibility to Bleomycin-Induced Skin Fibrosis
Mohit Kapoor, Matthew McCann, Shangxi Liu, Kun Huh, Christopher P. Denton, David J. Abraham, and Andrew Leask 2822

Vasculitis

Urinary CD4+ Effector Memory T Cells Reflect Renal Disease Activity in Antineutrophil Cytoplasmic Antibody-Associated Vasculitis
Wayel H. Abdulahad, Cees G. M. Kallenberg, Pieter C. Limburg, and Coen A. Stegeman 2830

Fibromyalgia

Neurologic Signs and Symptoms in Fibromyalgia
Nathaniel F. Watson, Dedra Buchwald, Jack Goldberg, Carolyn Noonan, and Richard G. Ellenbogen 2839

Next Editor of Arthritis & Rheumatism

2844

Concise Communication

Shared Familial Aggregation of Susceptibility to Autoimmune Diseases
Kari Hemminki, Xinjun Li, Kristina Sundquist, and Jan Sundquist 2845

Clinical Images

Muscle Sarcoidosis Demonstrated on Positron Emission Tomography
Isabelle Marie, Severine Josse, Laure Lahaxe, Hervé Levesque, and Anne Hitzler 2847

Letters

CD4+CD25+ Regulatory T Cells Modulate Human Dendritic Cell Chemokines via Multiple Mechanisms: Comment on the Article by Kolar et al
Ana-Maria Navarrete, Yann Meslier, Maud Teyssandier, Sébastien André, Sandrine Delignat, Frédéric Triebel, Srinivasa V. Kaveri, Sébastien Lacroix-Desnazes, and Jagadeesh Bayry 2848

Reply

Paula Kolar, Katrin Hebel, Karin Knieke, and Monika C. Brunner-Weinzierl 2849

A Meta-Analysis of the Effect Size of Rheumatoid Arthritis on Left Ventricular Mass: Comment on the Article by Rudominer et al

Salvatore Corrao, Rosario Scaglione, Luigi Calvo, and Giuseppe Licata 2851

Aortic Stiffness and Left Ventricular Hypertrophy in Rheumatoid Arthritis: Comment on the Article by Rudominer et al

E. Vizzardi, I. Cavazzana, A. Ceribelli, A. Tincani, L. Dei Cas, and F. Franceschini 2852

Small-Vessel Vasculitis Surrounding an Uninflamed Temporal Artery as a Diagnostic Criterion for Polymyalgia Rheumatica: Comment on the Article by Chatelain et al

Maria C. Cid, José Hernández-Rodríguez, Georgina Espigol-Frigolé, Montserrat Butjosa, Sergio Prieto-González, Ana García-Martínez, and Josep M. Grau 2853

Questioning the Likelihood That Sodium Oxybate Can Be Used to Successfully Treat Fibromyalgia: Comment on the Article by Russell et al
Graciela S. Alarcón 2854

Clinical Images

Severe Photosensitive Skin Reaction Secondary to an Herbal Treatment in a Patient With Systemic Lupus Erythematosus <i>Khaled M. Musallam, Elias A. Baydoun, and Imad Uthman</i>	2854
ACR Announcements	A20

VOLUME 60**OCTOBER 2009****NO. 10**

In This Issue	A17
----------------------------	-----

Special Articles

Editorial: Diagnosing Acute Nonspecific Low Back Pain: Time to Lower the Red Flags? <i>Martin Underwood</i>	2855
Editorial: Obesity and Osteoarthritis: Is Leptin the Link? <i>Linda J. Sandell</i>	2858

Rheumatoid Arthritis Clinical Studies

No Increased Occurrence of Ischemic Heart Disease Prior to the Onset of Rheumatoid Arthritis: Results From Two Swedish Population-Based Rheumatoid Arthritis Cohorts <i>Marie E. Holmqvist, Sara Wedrén, Lennart T. H. Jacobsson, Lars Klareskog, Fredrik Nyberg, Solbritt Rantapää-Dahlqvist, Lars Alfredsson, and Johan Askling</i>	2861
Abnormal Function of High-Density Lipoprotein Is Associated With Poor Disease Control and an Altered Protein Cargo in Rheumatoid Arthritis <i>Christina Charles-Schoeman, Junji Watanabe, Yuen Yin Lee, Daniel E. Furst, Sogol Amjadi, David Elashoff, Grace Park, Maureen McMahon, Harold E. Paulus, Alan M. Fogelman, and Srinivasa T. Reddy</i>	2870
Normalization of A _{2A} and A ₃ Adenosine Receptor Up-Regulation in Rheumatoid Arthritis Patients by Treatment With Anti-Tumor Necrosis Factor α but Not Methotrexate <i>Katia Varani, Alfonso Massara, Fabrizio Vincenzi, Alice Tosi, Melissa Padovan, Francesco Trotta, and Pier Andrea Borea</i>	2880

Rheumatoid Arthritis Basic Science Studies

Soluble Neuropilin-2, a Nerve Repellent Receptor, Is Increased in Rheumatoid Arthritis Synovium and Aggravates Sympathetic Fiber Repulsion and Arthritis <i>Alexander Fassold, Werner Falk, Sven Anders, Thomas Hirsch, Vladimir M. Mirsky, and Rainer H. Straub</i>	2892
Thrombin-Activatable Carboxypeptidase B Cleavage of Osteopontin Regulates Neutrophil Survival and Synoviocyte Binding in Rheumatoid Arthritis <i>Shadi A. Sharif, Xiaoyan Du, Timothy Myles, Jason J. Song, Elizabeth Price, David M. Lee, Stuart B. Goodman, Mariko Nagashima, John Morser, William H. Robinson, and Lawrence L. K. Leung</i>	2902
Estrone/17 β -Estradiol Conversion to, and Tumor Necrosis Factor Inhibition by, Estrogen Metabolites in Synovial Cells of Patients With Rheumatoid Arthritis and Patients With Osteoarthritis <i>Martin Schmidt, Regina Hartung, Silvia Capellino, Maurizio Cutolo, Antje Pfeifer-Leeg, and Rainer H. Straub</i>	2913

Sjögren's Syndrome

Association of Immunoglobulin-like Transcript 6 Deficiency With Sjögren's Syndrome <i>G. Kabalak, S. B. Dobberstein, T. Matthias, S. Reuter, Y.-H. The, T. Dörner, R. E. Schmidt, and T. Witte</i> ..	2923
--	------

Synovium

Human Inflammatory Synovial Fibroblasts Induce Enhanced Myeloid Cell Recruitment and Angiogenesis Through a Hypoxia-Inducible Transcription Factor 1 α /Vascular Endothelial Growth Factor-Mediated Pathway in Immunodeficient Mice <i>Manuel J. del Rey, Elena Izquierdo, Sergio Caja, Alicia Usategui, Begoña Santiago, María Galindo, and José L. Pablos</i>	2926
---	------

Experimental Arthritis

Extreme Obesity Due to Impaired Leptin Signaling in Mice Does Not Cause Knee Osteoarthritis <i>Timothy M. Griffin, Janet L. Huebner, Virginia B. Kraus, and Farshid Guilak</i>	2935
CCR5 Is Involved in Resolution of Inflammation in Proteoglycan-Induced Arthritis <i>Paul D. Doodes, Yanxia Cao, Keith M. Hamel, Yumei Wang, Rachel L. Rodeghero, Tamas Kopezda, and Alison Finnegan</i>	2945

Scavenger Receptor Class A Type I/II Determines Matrix Metalloproteinase–Mediated Cartilage Destruction and Chondrocyte Death in Antigen-Induced Arthritis <i>P. L. E. M. van Lent, W. Hofkens, A. B. Blom, L. Grevers, A. Sloetjes, N. Takahashi, L. J. van Tits, T. Vogl, J. Roth, M. P. de Winther, and W. B. van den Berg</i>	2954
Bone Biology	
Continuous Occurrence of Both Insufficient Neovascularization and Elevated Vascular Permeability in Rabbit Proximal Femur During Inadequate Repair of Steroid-Associated Osteonecrotic Lesions <i>Ge Zhang, Hui Sheng, Yi-Xin He, Xin-Hui Xie, Yi-Xiang Wang, Kwong-Man Lee, Ka-Wai Yeung, Zi-Rong Li, Wei He, James F. Griffith, Kwok-Sui Leung, and Ling Qin</i>	2966
Tendon	
Prognostic Factors in Nonoperative Therapy for Chronic Symptomatic Calcific Tendinitis of the Shoulder <i>P. Ogon, N. P. Suedkamp, M. Jaeger, K. Izadpanah, W. Koestler, and D. Maier</i>	2978
Cartilage Biology	
Mechanical Injury Potentiates Proteoglycan Catabolism Induced by Interleukin-6 With Soluble Interleukin-6 Receptor and Tumor Necrosis Factor α in Immature Bovine and Adult Human Articular Cartilage <i>Yihong Sui, Jennifer H. Lee, Michael A. DiMicco, Eric J. Vanderploeg, Simon M. Blake, Han-Hwa Hung, Anna H. K. Plaas, Ian E. James, Xiao-Yu Song, Michael W. Lark, and Alan J. Grodzinsky</i>	2985
The Impact of Anterior Cruciate Ligament Injury on Lubricin Metabolism and the Effect of Inhibiting Tumor Necrosis Factor α on Chondroprotection in an Animal Model <i>K. A. Elsaid, J. T. Machan, K. Waller, B. C. Fleming, and G. D. Jay</i>	2997
Induction of Bovine Articular Chondrocyte Senescence With Oxidized Low-Density Lipoprotein Through Lectin-like Oxidized Low-Density Lipoprotein Receptor 1 <i>Satoshi Zushi, Masao Akagi, Hideki Kishimoto, Takeshi Teramura, Tatsuya Sawamura, and Chiaki Hamanishi</i>	3007
The Melanocortin System in Articular Chondrocytes: Melanocortin Receptors, Pro-opiomelanocortin, Precursor Proteases, and a Regulatory Effect of α -Melanocyte-Stimulating Hormone on Proinflammatory Cytokines and Extracellular Matrix Components <i>Susanne Grässel, Alfred Opolka, Sven Anders, Rainer H. Straub, Joachim Grifka, Thomas A. Luger, and Markus Böhm</i>	3017
Functional Characterization of TRPV4 as an Osmotically Sensitive Ion Channel in Porcine Articular Chondrocytes <i>Mimi N. Phan, Holly A. Leddy, Bartholomew J. Votta, Sanjay Kumar, Dana S. Levy, David B. Lipshutz, Suk Hee Lee, Wolfgang Liedtke, and Farshid Guilak</i>	3028
Hypoxia-Inducible Factor 1 α Inhibits the Fibroblast-like Markers Type I and Type III Collagen During Hypoxia-Induced Chondrocyte Redifferentiation: Hypoxia Not Only Induces Type II Collagen and Aggrecan, but It Also Inhibits Type I and Type III Collagen in the Hypoxia-Inducible Factor 1 α -Dependent Redifferentiation of Chondrocytes <i>Elise Duval, Sylvain Leclercq, Jean-Marc Elissalde, Magali Demoor, Philippe Galéra, and Karim Boumédiène</i>	3038
Osteoarthritis	
Parathyroid Hormone 1–34 Inhibits Terminal Differentiation of Human Articular Chondrocytes and Osteoarthritis Progression in Rats <i>Je-Ken Chang, Ling-Hwa Chang, Shao-Hung Hung, Shun-Cheng Wu, Hsin-Yi Lee, Yi-Shan Lin, Chung-Hwan Chen, Yin-Chih Fu, Gwo-Jaw Wang, and Mei-Ling Ho</i>	3049
Induction of an Antiinflammatory Effect and Prevention of Cartilage Damage in Rat Knee Osteoarthritis by CF101 Treatment <i>S. Bar-Yehuda, L. Rath-Wolfsen, L. Del Valle, A. Ochaion, S. Cohen, R. Patoka, G. Zozulya, F. Barer, E. Atar, S. Piña-Oviedo, G. Perez-Liz, D. Castel, and P. Fishman</i>	3061
Erratum	
Incorrect graph in upper right panel of Figure 2 in Article by Damjanov et al (Arthritis Rheum, May 2009).....	3071
Back Pain	
Prevalence of and Screening for Serious Spinal Pathology in Patients Presenting to Primary Care Settings With Acute Low Back Pain <i>Nicholas Henschke, Christopher G. Maher, Kathryn M. Refshauge, Robert D. Herbert, Robert G. Cumming, Jane Bleasel, John York, Anurina Das, and James H. McAuley</i>	3072

Systemic Lupus Erythematosus	
C1q Inhibits Immune Complex-Induced Interferon- α Production in Plasmacytoid Dendritic Cells: A Novel Link Between C1q Deficiency and Systemic Lupus Erythematosus Pathogenesis	
<i>Christian Lood, Birgitta Gullstrand, Lennart Truedsson, Anders I. Olin, Gunnar V. Alm, Lars Rönnblom, Gunnar Sturfelt, Maija-Leena Eloranta, and Anders A. Bengtsson</i>	3081
Recurrence Rates of Cardiac Manifestations Associated With Neonatal Lupus and Maternal/Fetal Risk Factors	
<i>Carolina Llanos, Peter M. Izmirly, Margaret Katholi, Robert M. Clancy, Deborah M. Friedman, Mimi Y. Kim, and Jill P.Buyon</i>	3091
Interferon-Regulated Chemokines as Biomarkers of Systemic Lupus Erythematosus Disease Activity: A Validation Study	
<i>Jason W. Bauer, Michelle Petri, Franak M. Batliwalla, Thearith Koeuth, Joseph Wilson, Catherine Slattery, Angela Panoskalskis-Mortari, Peter K. Gregersen, Timothy W. Behrens, and Emily C. Baechler</i>	3098
Antiphospholipid Syndrome	
Plasmin Immunization Preferentially Induces Potentially Prothrombotic IgG Anticardiolipin Antibodies in MRL/MpJ Mice	
<i>Kaleo Ede, Kwan-Ki Hwang, Chen-Ching Wu, Meifang Wu, Yao-Hsu Yang, Wei-Shiang Lin, Daniel Chien, Pei-Chih Chen, Betty P. Tsao, Deborah K. McCurdy, and Pojen P. Chen</i>	3108
Myositis	
Retinoid Ameliorates Experimental Autoimmune Myositis, With Modulation of Th Cell Differentiation and Antibody Production In Vivo	
<i>Naho Ohyanagi, Miwako Ishido, Fumihito Suzuki, Kayoko Kaneko, Tetsuo Kubota, Nobuyuki Miyasaka, and Toshihiro Nanki</i>	3118
Erdheim-Chester Disease	
^{18}F -Fluorodeoxyglucose-Positron Emission Tomography Scanning Is More Useful in Followup Than in the Initial Assessment of Patients With Erdheim-Chester Disease	
<i>Laurent Arnaud, Zoulidha Malek, Frédérique Archambaud, Aurélie Kas, Dan Toledano, Aurélie Drier, Delphine Zeitoun, Philippe Cluzel, Philippe A. Grenier, Jacques Chiras, Jean-Charles Piette, Zahir Amoura, and Julien Haroche</i>	3128
Vasculitis	
IgG4-Related Systemic Disease and Lymphoplasmacytic Aortitis	
<i>John H. Stone, Arezou Khosroshahi, Alan Hilgenberg, Amy Spooner, Eric M. Isselbacher, and James R. Stone</i>	3139
Clinical Images	
Transient Regional Osteoporosis	
<i>Andrew Grey, Nicola Dalbeth, and Anthony Doyle</i>	3145
Fibromyalgia	
Elevated Insular Glutamate in Fibromyalgia Is Associated With Experimental Pain	
<i>Richard E. Harris, Pia C. Sundgren, A. D. Craig, Eric Kirshenbaum, Ananda Sen, Vitaly Napadow, and Daniel J. Clauw</i>	3146
Concise Communication	
CD244 Is Not Associated With Susceptibility to Rheumatoid Arthritis and Systemic Lupus Erythematosus in a Korean Population	
<i>Soo-Kyung Cho, Tae-Un Han, Kwangwoo Kim, So-Young Bang, Sang-Cheol Bae, and Changwon Kang</i>	3153
ACR Announcements	A24

VOLUME 60

OCTOBER SUPPLEMENT 2009

NO. 10

Annual Scientific Meetings of the American College of Rheumatology and the Association of Rheumatology Health Professionals

S1

VOLUME 60

NOVEMBER 2009

NO. 11

In This Issue

A21

Special Articles

Editorial: Interpreting Registry-Derived Drug Studies: Does Societal Context Matter? <i>Joel M. Kremer and Jeffrey Greenberg</i>	3155
Editorial: Human Osteoclastogenic T Cells and Human Osteoclastology <i>Shigeru Kotake, Yuki Nanke, Toru Yago, Manabu Kawamoto, and Hisashi Yamanaka</i>	3158
Editorial: The Price of Silence <i>Nathalie C. Lambert</i>	3164
Review: Endothelial Progenitor Cells: Novel Players in the Pathogenesis of Rheumatic Diseases <i>Jörg H. W. Distler, Christian Beyer, Georg Schett, Thomas F. Lüscher, Steffen Gay, and Oliver Distler</i>	3168

Rheumatoid Arthritis Clinical Studies

Cancer Risk in Patients With Rheumatoid Arthritis Treated With Anti-Tumor Necrosis Factor α Therapies: Does the Risk Change With the Time Since Start of Treatment? <i>Johan Askling, Ronald F. van Vollenhoven, Fredrik Granath, Pauline Raaschou, C. Michael Fored, Eva Baecklund, Christina Dackhammar, Nils Feltelius, Lars Cöster, Pierre Geborek, Lennart T. Jacobsson, Staffan Lindblad, Solbritt Rantapää-Dahlqvist, Tore Saxne, and Lars Klareskog</i>	3180
Brain Involvement in Rheumatoid Arthritis: A Magnetic Resonance Spectroscopy Study <i>Bart J. Emmer, A. Egon van der Bijl, Tom W. J. Huizinga, Ferdinand C. Breedveld, Stefan C. A. Steens, Gerlof P. Th. Bosma, Mark A. van Buchem, and Jeroen van der Grond</i>	3190
Association of Higher Rheumatoid Arthritis Disease Activity During Pregnancy With Lower Birth Weight: Results of a National Prospective Study <i>Yaël A. de Man, Johanna M. W. Hazes, Hugo van der Heide, Sten P. Willemsen, Christianne J. M. de Groot, Eric A. P. Steegers, and Radboud J. E. M. Dolhain</i>	3196
Epitope-Specific Immunotherapy of Rheumatoid Arthritis: Clinical Responsiveness Occurs With Immune Deviation and Relies on the Expression of a Cluster of Molecules Associated With T Cell Tolerance in a Double-Blind, Placebo-Controlled, Pilot Phase II Trial <i>Eva C. Koffeman, Mark Genovese, Diane Amox, Elissa Keogh, Ernesto Santana, Eric L. Matteson, Arthur Kavanaugh, Jerry A. Molitor, Michael H. Schiff, James O. Posever, Joan M. Bathon, Alan J. Kivitz, Rodrigo Samodal, Francis Belardi, Carolyn Dennehey, Theo van den Broek, Femke van Wijk, Xiao Zhang, Peter Zieseniss, Tho Le, Berent A. Prakken, Gary C. Cutter, and Salvatore Albani</i>	3207
The Relationship Between Synovial Lymphocyte Aggregates and the Clinical Response to Infliximab in Rheumatoid Arthritis: A Prospective Study <i>Ruth Klaasen, Rogier M. Thurlings, Carla A. Wijbrandts, Arno W. van Kuijk, Dominique Baeten, Danielle M. Gerlag, and Paul P. Tak</i>	3217
Progressive Multifocal Leukoencephalopathy Following Rituximab Treatment in a Patient With Rheumatoid Arthritis <i>R. M. Fleischmann</i>	3225

Rheumatoid Arthritis Basic Science Studies

Gadd45 β Deficiency in Rheumatoid Arthritis: Enhanced Synovitis Through JNK Signaling <i>Camilla I. Svensson, Tomoyuki Inoue, Deepa Hammaker, Akihisa Fukushima, Salvatore Papa, Guido Franzoso, Georg Schett, Maripat Corr, David L. Boyle, and Gary S. Firestein</i>	3229
Differential Mechanism of NF- κ B Inhibition by Two Glucocorticoid Receptor Modulators in Rheumatoid Arthritis Synovial Fibroblasts <i>Valerie Gossye, Dirk Elewaut, Nadia Bougarne, Debby Bracke, Serge Van Calenbergh, Guy Haegeman, and Karolien De Bosscher</i>	3241
American College of Rheumatology Office Has Moved	3250

Sjögren's Syndrome

Clinical and Histologic Evidence of Salivary Gland Restoration Supports the Efficacy of Rituximab Treatment in Sjögren's Syndrome <i>J. Pijpe, J. M. Meijer, H. Bootsma, J. E. van der Wal, F. K. L. Spijkervet, C. G. M. Kallenberg, A. Vissink, and S. Ihrler</i>	3251
--	------

Spondylarthritis

Altered Skeletal Expression of Sclerostin and Its Link to Radiographic Progression in Ankylosing Spondylitis <i>Heiner Appel, Gisela Ruiz-Heiland, Joachim Listing, Jochen Zwerina, Martin Herrmann, Ruediger Mueller, Hildrun Haibel, Xenofon Baraliakos, Axel Hempfing, Martin Rudwaleit, Joachim Sieper, and Georg Schett</i> ..	3257
Association of <i>ERAP1</i> , but Not <i>IL23R</i> , With Ankylosing Spondylitis in a Han Chinese Population <i>Stuart I. Davidson, Xin Wu, Yu Liu, Meng Wei, Patrick A. Danoy, Gethin Thomas, Qing Cai, Linyun Sun, Emma Duncan, Niansong Wang, Qinghong Yu, Anlong Xu, Yonggui Fu, Matthew A. Brown, and Huji Xu</i>	3263

Identification of RGS1 as a Candidate Biomarker for Undifferentiated Spondylarthritis by Genome-Wide Expression Profiling and Real-Time Polymerase Chain Reaction <i>Jieruo Gu, Yu-Ling Wei, James C. C. Wei, Feng Huang, Ming-Shiou Jan, Michael Centola, Mark B. Frank, and David Yu</i>	3269
Experimental Arthritis	
Impaired Myofibrillar Function in the Soleus Muscle of Mice With Collagen-Induced Arthritis <i>Takashi Yamada, Nicolas Place, Natalia Kosterina, Therese Östberg, Shi-Jin Zhang, Cecilia Grundtman, Helena Erlandsson-Harris, Ingrid E. Lundberg, Birgitta Glenmark, Joseph D. Bruton, and Håkan Westerblad</i>	3280
Amelioration of Experimental Arthritis by a Telomerase-Dependent Conditionally Replicating Adenovirus That Targets Synovial Fibroblasts <i>Shih-Yao Chen, Ai-Li Shiau, Gia-Shing Shieh, Chih-Hau Su, Che-Hsin Lee, Hwei-Ling Lee, Chrong-Reen Wang, and Chao-Liang Wu</i>	3290
Cartilage Biology	
DNA Demethylation at Specific CpG Sites in the <i>IL1B</i> Promoter in Response to Inflammatory Cytokines in Human Articular Chondrocytes <i>Ko Hashimoto, Richard O. C. Oreffo, Marc B. Gibson, Mary B. Goldring, and Helmut I. Roach</i>	3303
Screening of Chondrogenic Factors With a Real-Time Fluorescence-Monitoring Cell Line ATDC5-C2ER: Identification of Sorting Nexin 19 as a Novel Factor <i>Akinori Kan, Toshiyuki Ikeda, Taku Saito, Fumiko Yano, Atushi Fukai, Hironori Hojo, Toru Ogasawara, Naoshi Ogata, Kozo Nakamura, Ung-il Chung, and Hiroshi Kawaguchi</i>	3314
Bone Biology	
A Novel T Cell Cytokine, Secreted Osteoclastogenic Factor of Activated T Cells, Induces Osteoclast Formation in a RANKL-Independent Manner <i>Leonard Rifas and M. Neale Weitzmann</i>	3324
Tumor Necrosis Factor α and Interleukin-1 β Modulate Calcium and Nitric Oxide Signaling in Mechanically Stimulated Osteocytes <i>A. D. Bakker, V. C. da Silva, R. Krishnan, R. G. Bacabac, M. E. Blaauwboer, Y.-C. Lin, R. A. C. Marcantonio, J. A. Cirelli, and J. Klein-Nulend</i>	3336
Osteoporosis	
Effects of Teriparatide Versus Alendronate for Treating Glucocorticoid-Induced Osteoporosis: Thirty-Six-Month Results of a Randomized, Double-Blind, Controlled Trial <i>Kenneth G. Saag, Jose R. Zanchetta, Jean-Pierre Devogelaer, Robert A. Adler, Richard Eastell, Kyoungah See, John H. Krege, Kelly Krohn, and Margaret R. Warner</i>	3346
Circulating Mesenchymal Stem Cells With Abnormal Osteogenic Differentiation in Patients With Osteoporosis <i>Luca Dalle Carbonare, Maria Teresa Valenti, Mirko Zanatta, Luca Donatelli, and Vincenzo Lo Cascio</i>	3356
Osteoarthritis	
Whole-Body Bone Scintigraphy Provides a Measure of the Total-Body Burden of Osteoarthritis for the Purpose of Systemic Biomarker Validation <i>Shelby Addison, R. Edward Coleman, Sheng Feng, Gary McDaniel, and Virginia Byers Kraus</i>	3366
The Infrapatellar Fat Pad in Knee Osteoarthritis: An Important Source of Interleukin-6 and Its Soluble Receptor <i>Emilie Distel, Thomas Cadoudal, Sylvie Durant, Alexandre Poignard, Xavier Chevalier, and Chantal Benelli</i>	3374
Systemic Lupus Erythematosus	
Distinct Subtypes of Myelitis in Systemic Lupus Erythematosus <i>J. Birnbaum, M. Petri, R. Thompson, I. Izubudak, and D. Kerr</i>	3378
Childhood Arthritis	
Macrophage Activation Syndrome in Juvenile Systemic Lupus Erythematosus: A Multinational Multicenter Study of Thirty-Eight Patients <i>Alessandro Parodi, Sergio Davi, Alejandra Beatriz Pringe, Angela Pistorio, Nicolino Ruperto, Silvia Maggi-Manzoni, Paivi Miettunen, Brigitte Bader-Meunier, Graciela Espada, Gary Sterba, Seza Ozan, Dowain Wright, Claudia Saad Magalhães, Raju Khubchandani, Hartmut Michels, Patricia Woo, Antonio Iglesias, Dinara Guseinova, Claudia Bracaglia, Kristen Hayward, Carine Wouters, Alexei Grom, Marina Vivarelli, Alberto Fischer, Luciana Breda, Alberto Martini, and Angelo Ravelli, for the Lupus Working Group of the Paediatric Rheumatology European Society</i>	3388
B Lymphocyte Stimulator Expression in Pediatric Systemic Lupus Erythematosus and Juvenile Idiopathic Arthritis Patients <i>Sandy D. Hong, Andreas Reiff, Hai-Tao Yang, Thi-Sau Migone, Christopher D. Ward, Katherine Marzan, Bracha Shaham, Wee Choo Phei, Judith Garza, Bram Bernstein, and William Stohl</i>	3400

Increased Frequency of Extremely Skewed X Chromosome Inactivation in Juvenile Idiopathic Arthritis <i>Elif Uz, Chigdem Mustafa, Rezan Topaloglu, Yelda Bilginer, Ali Dursun, Ozgur Kasapcopur, Seza Ozen, Aysin Bakkaloglu, and Tayfun Ozcelik</i>	3410
Classification, Presentation, and Initial Treatment of Wegener's Granulomatosis in Childhood <i>David A. Cabral, América G. Uribe, Susanne Benseler, Kathleen M. O'Neil, Philip J. Hashkes, Gloria Higgins, Andrew S. Zeff, Daniel J. Lovell, Daniel J. Kingsbury, Anne Stevens, Deborah McCurdy, Peter Chira, Leslie Abramson, Thaschawee Arkachaisri, Sarah Campillo, Anne Eberhard, Aimee O. Hersh, Adam M. Huber, Susan Kim, Marisa Klein-Gitelman, Deborah M. Levy, Suzanne C. Li, Thomas Mason, Esi Morgan DeWitt, Eyal Muscal, Lorien Nassi, Andreas Reiff, Kenneth Schikler, Nora G. Singer, Dawn Wahezi, and Amy Woodward, for the ARChiVe (A Registry for Childhood Vasculitis: e-entry) Investigators Network</i>	3413
Damage Extent and Predictors in Adult and Juvenile Dermatomyositis and Polymyositis As Determined With the Myositis Damage Index <i>Lisa G. Rider, Peter A. Lachenbruch, Jason B. Monroe, Angelo Ravelli, Imelda Cabalar, Brian M. Feldman, Maria L. Villalba, Barry L. Myones, Lauren M. Pachman, Robert M. Rennebohm, Ann M. Reed, and Frederick W. Miller, for the IMACS Group</i>	3425
Myositis	
Interleukin-6 and Type I Interferon–Regulated Genes and Chemokines Mark Disease Activity in Dermatomyositis <i>Hatice Bilgic, Steven R. Ytterberg, Shreyasee Amin, Kelly T. McNallan, Joseph C. Wilson, Thearith Koeuth, Sonja Ellingson, Brant Newman, Jason W. Bauer, Erik J. Peterson, Emily C. Baechler, and Ann M. Reed</i> ..	3436
Clinical Images	
Adductor Muscle Strain in an Elderly Patient With Suspected Femoral Neck Fracture <i>Kosei Kawakami, Katsunori Ikari, Koichiro Yano, and Shigeki Momohara</i>	3446
Systemic Sclerosis	
BANK1 Is a Genetic Risk Factor for Diffuse Cutaneous Systemic Sclerosis and Has Additive Effects With IRF5 and STAT4 <i>P. Dieudé, J. Wipff, M. Guedj, B. Ruiz, I. Melchers, E. Hachulla, G. Riemekasten, E. Diot, N. Hunzelmann, J. Sibilia, K. Tiev, L. Mouthon, J. L. Cracowski, P. H. Carpentier, J. Distler, Z. Amoura, I. Tanner, J. Avouac, O. Meyer, A. Kahan, C. Boileau, and Y. Allanore</i>	3447
Dabigatran, a Direct Thrombin Inhibitor, Demonstrates Antifibrotic Effects on Lung Fibroblasts <i>Galina S. Bogatkevich, Anna Ludwicka-Bradley, and Richard M. Silver</i>	3455
A Novel Inhibitor of Smad-Dependent Transcriptional Activation Suppresses Tissue Fibrosis in Mouse Models of Systemic Sclerosis <i>Minoru Hasegawa, Yukiyo Matsushita, Mayuka Horikawa, Kiyoshi Higashi, Yoshitaka Tomigahara, Hideo Kaneko, Fumiaki Shirasaki, Manabu Fujimoto, Kazuhiko Takehara, and Shinichi Sato</i>	3465
Autoinflammatory Disease	
The 423q Polymorphism of the X-Linked Inhibitor of Apoptosis Gene Influences Monocyte Function and Is Associated With Periodic Fever <i>Massimo Ferretti, Marco Gattorno, Annalisa Chiocchetti, Riccardo Mesturini, Elisabetta Orilieri, Thea Bensi, Maria Pia Sormani, Giuseppe Cappellano, Elisa Cerutti, Stefania Nicola, Alessandra Biava, Claudio Bardelli, Silvia Federici, Isabella Ceccherini, Maurizia Baldi, Claudio Santoro, Irma Dianzani, Alberto Martini, and Umberto Dianzani</i>	3476
Gout	
Role of the Urate Transporter SLC2A9 Gene in Susceptibility to Gout in New Zealand Māori, Pacific Island, and Caucasian Case–Control Sample Sets <i>Jade E. Hollis-Moffatt, Xin Xu, Nicola Dalbeth, Marilyn E. Merriman, Ruth Topless, Chloe Waddell, Peter J. Gow, Andrew A. Harrison, John Highton, Peter B. B. Jones, Lisa K. Stamp, and Tony R. Merriman</i>	3485
Vasculitis	
Increased Incidence of Cardiovascular Events in Patients With Antineutrophil Cytoplasmic Antibody–Associated Vasculitides: A Matched-Pair Cohort Study <i>Matthew D. Morgan, Jennifer Turnbull, Umut Selamet, Manvir Kaur-Hayer, Peter Nightingale, Charles J. Ferro, Caroline O. S. Savage, and Lorraine Harper</i>	3493
Integrated Cardiac and Vascular Assessment in Takayasu Arteritis by Cardiovascular Magnetic Resonance <i>Niall G. Keenan, Justin C. Mason, Alicia Maceira, Ravi Assomull, Rory O'Hanlon, Cheuk Chan, Michael Roughton, Jacqueline Andrews, Peter D. Gatehouse, David N. Firmin, and Dudley J. Pennell</i>	3501

Concise Communication

The *FCRL3* –169CT Promoter Single-Nucleotide Polymorphism, Which Is Associated With Systemic Lupus Erythematosus in a Japanese Population, Predicts Expression of Receptor Protein on CD19+ B Cells

Andrew W. Gibson, Fu Jun Li, Jianming Wu, Jeffrey C. Edberg, Kaihong Su, John Cafardi, Howard Wiener, Hemant Tiwari, Robert P. Kimberly, and Randall S. Davis 3510

Clinical Images

Lipoatrophy Resulting From Steroid Injection Into the Temporomandibular Joint

Boris Hugle and Ronald M. Laxer 3512

Letters

The p38 MAPK Pathway Mediates Both Antiinflammatory and Proinflammatory Processes: Comment on the Article by Damjanov and the Editorial by Genovese

Andrew R. Clark, Jonathan L. E. Dean, and Jeremy Saklatvala 3513

Methodology and Statistical Analysis in the Glucosamine/Chondroitin Arthritis Intervention Trial: Comment on the Article by Sawitzke et al

Kenneth D. Brandt, Steven A. Mazzuca, and Barry P. Katz 3514

Reply

Allen D. Sawitzke, Helen Shi, Martha F. Finco, Dorothy D. Dunlop, Crystal L. Harris, Domenic J. Reda, H. James Williams, and Daniel O. Clegg 3515

No Evidence Yet to Change American Heart Association Recommendations for Poststreptococcal

Reactive Arthritis: Comment on the Article by van Bemmel et al

Gabriele Simonini, Andrea Taddio, and Rolando Cimaz 3516

Reply

J. M. van Bemmel, T. W. J. Huizinga, and A. H. M. van der Helm-van Mil 3518

Time to Prove the Infective Etiology of Ankylosing Spondylitis and Related Spondylarthritides: Comment on the Article by Carter et al

Henning Zeidler and Markus Riehl 3519

Reply

John D. Carter and Alan P. Hudson 3520

Autoantibodies Against the Platelet-Derived Growth Factor Receptor in Scleroderma: Comment on the Articles by Classen et al and Loizos et al

Armando Gabrielli, Gianluca Morocchini, Silvia Svegliati, and Enrico V. Avvedimento 3521

Clinical Image

Fistulization of Aortic Aneurysm Into the Main Bronchus in Giant Cell Arteritis

Gabriele Di Comite and Alberto Morganti 3522

ACR Announcements

A29

VOLUME 60

DECEMBER 2009

NO. 12

In This Issue A23

Special Articles

Editorial: The Child, Grown, Becomes Independent

Patricia P. Katz, Edward H. Yelin, and Michael D. Lockshin 3523

Editorial: Multiple Interleukin-1 β -Converting Enzymes Contribute to Inflammatory Arthritis

Christian Stehlik 3524

Editorial: A Novel Experimental Approach in Treating Central Nervous System Lupus: Kudos and Kicks

Boris Sakic 3531

Review: Mediators of Structural Remodeling in Peripheral Spondylarthritides

Bernard Vandooren, Nataliya Yeremenko, Troy Noordenbos, Johannes Bras, Paul P. Tak, and Dominique Baeten 3534

Economics

Insurer and Out-of-Pocket Costs of Osteoarthritis in the US Evidence From National Survey Data

Harry Koltarz, Candace L. Gunnarsson, Hai Fang, and John A. Rizzo 3546

Joint Replacement Surgeries Among Medicare Beneficiaries in Rural Compared With Urban Areas

Mark L. Francis, Steven L. Scaife, Whitney E. Zahnd, E. Francis Cook, and Sebastian Schneeweiss 3554

Rheumatoid Arthritis

Depletion of Functionally Active CD20+ T Cells by Rituximab Treatment
Esther Wilk, Torsten Witte, Nicole Marquardt, Tibor Horvath, Katy Kalippke, Kirsten Scholz, Nadine Wilke, Reinhold E. Schmidt, and Roland Jacobs 3563

MLN3897 Plus Methotrexate in Patients With Rheumatoid Arthritis: Safety, Efficacy, Pharmacokinetics, and Pharmacodynamics of an Oral CCR1 Antagonist in a Phase IIa, Double-Blind, Placebo-Controlled, Randomized, Proof-of-Concept Study
Clarissa E. Vergunst, Danielle M. Gerlag, Lisa von Moltke, Michael Karol, Tim Wyant, Xuedong Chi, Ellen Matzkin, Timothy Leach, and Paul P. Tak 3572

Clinical Images

Aggressive Gouty Arthritis With Concurrent Involvement of the Ankle and Cervical Spine
Yeon-Ah Lee, Sang-Hoon Lee, Hyung-In Yang, and Seung-Jae Hong 3572

Rheumatoid Arthritis Basic Science Studies

Contribution of a Haplotype in the HLA Region to Anti-Cyclic Citrullinated Peptide Antibody Positivity in Rheumatoid Arthritis, Independently of HLA-DRB1
Yukinori Okada, Ryo Yamada, Akari Suzuki, Yuta Kochi, Kenichi Shimane, Keiko Myouzen, Michiaki Kubo, Yusuke Nakamura, and Kazuhiko Yamamoto 3582

Specifically Modified Osteopontin in Rheumatoid Arthritis Fibroblast-like Synoviocytes Supports Interaction With B Cells and Enhances Production of Interleukin-6
Yasuhiro Take, Ken Nakata, Jun Hashimoto, Hideki Tsuboi, Norihiro Nishimoto, Takahiro Ochi, and Hideki Yoshikawa 3591

A Critical Role of Cyr61 in Interleukin-17-Dependent Proliferation of Fibroblast-like Synoviocytes in Rheumatoid Arthritis
Qiuyu Zhang, Juanjuan Wu, Qi Cao, Lianbo Xiao, Li Wang, Dongyi He, Guilin Ouyang, Jinpiao Lin, Baihua Shen, Yuan Shi, Yan Zhang, Dangsheng Li, and Ningli Li 3602

DNA Hypomethylation in Rheumatoid Arthritis Synovial Fibroblasts
Emmanuel Karouzakis, Renate E. Gay, Beat A. Michel, Steffen Gay, and Michel Neidhart 3613

Synovium

Glucocorticoids Increase α 5 Integrin Expression and Adhesion of Synovial Fibroblasts but Inhibit ERK Signaling, Migration, and Cartilage Invasion
Torsten Lowin, Rainer H. Straub, Elena Neumann, Anja Bosserhoff, Corinna Vogel, Christine Moissl, Sven Anders, Ulf Müller-Ladner, and Jörg Schedel 3623

Sjögren's Syndrome

Interleukin-12 Induces Salivary Gland Dysfunction in Transgenic Mice, Providing a New Model of Sjögren's Syndrome
Jelle L. Vosters, Melissa A. Landek-Salgado, Hongen Yin, William D. Swaim, Hiroaki Kimura, Paul P. Tak, Patrizio Caturegli, and John A. Chiorini 3633

Experimental Arthritis

Caspase 1-Independent Activation of Interleukin-1 β in Neutrophil-Predominant Inflammation
Monica Guma, Lisa Ronacher, Ru Liu-Bryan, Shinji Takai, Michael Karin, and Maripat Corr 3642

Inflammatory Arthritis in Caspase 1 Gene-Deficient Mice Contribution of Proteinase 3 to Caspase 1-Independent Production of Bioactive Interleukin-1 β
Leo A. B. Joosten, Mihai G. Netea, Giamila Fantuzzi, Marije I. Koenders, Monique M. A. Helsen, Helmut Sparrer, Christine T. Pham, Jos W. M. van der Meer, Charles A. Dinarello, and Wim B. van den Berg 3651

Bone Biology

Inhibitor of DNA Binding/Differentiation 2 Induced by Hypoxia Promotes Synovial Fibroblast-Dependent Osteoclastogenesis
Mariola Kurowska-Stolarska, Jörg H. W. Distler, Astrid Jüngel, Weronika Rudnicka, Elena Neumann, Thomas Pap, Roland H. Wenger, Beat A. Michel, Ulf Müller-Ladner, Renate E. Gay, Włodzimierz Maslinski, Steffen Gay, and Oliver Distler 3663

Cartilage Biology

Combined Role of Type IX Collagen and Cartilage Oligomeric Matrix Protein in Cartilage Matrix Assembly Cartilage Oligomeric Matrix Protein Counteracts Type IX Collagen-Induced Limitation of Cartilage Collagen Fibril Growth in Mouse Chondrocyte Cultures
K. Blumberach, Y. M. Bastiaansen-Jenniskens, J. DeGroot, M. Paulsson, G. J. V. M. van Osch, and F. Zaucke 3676

Induction of Chondrogenesis From Human Embryonic Stem Cells Without Embryoid Body Formation by Bone Morphogenetic Protein 7 and Transforming Growth Factor β 1
Toshiyuki Nakagawa, Sang Yang Lee, and A. Hari Reddi 3686

Increased Tibiofemoral Cartilage Contact Deformation in Patients With Anterior Cruciate Ligament Deficiency	3693
Samuel K. Van de Velde, Jeffrey T. Bingham, Ali Hosseini, Michal Kozanek, Louis E. DeFrate, Thomas J. Gill, and Guoan Li	
Osteoarthritis	
Denuded Subchondral Bone and Knee Pain in Persons With Knee Osteoarthritis	
Kirsten Moisio, Felix Eckstein, Joan S. Chmiel, Ali Guermazi, Pottumarthi Prasad, Orit Almagor, Jing Song, Dorothy Dunlop, Martin Hudelmaier, Ami Kothari, and Leena Sharma	3703
Trabecular Morphometry by Fractal Signature Analysis Is a Novel Marker of Osteoarthritis Progression	
Virginia Byers Kraus, Sheng Feng, ShengChu Wang, Scott White, Maureen Ainslie, Alan Brett, Anthony Holmes, and H. Cecil Charles	3711
Matrix Metalloproteinase 13-Deficient Mice Are Resistant to Osteoarthritic Cartilage Erosion but Not Chondrocyte Hypertrophy or Osteophyte Development	
C. B. Little, A. Barai, D. Burkhardt, S. M. Smith, A. J. Fosang, Z. Werb, M. Shah, and E. W. Thompson ..	3723
Systemic Lupus Erythematosus	
A Novel Subpopulation of B-1 Cells Is Enriched With Autoreactivity in Normal and Lupus-Prone Mice	
Xuemei Zhong, Stanley Lau, Chunyan Bai, Nicolas Degauque, Nichol E. Holodick, Scott J. Steven, Joseph Tumang, Wenda Gao, and Thomas L. Rothstein	3734
Amelioration of Brain Pathology and Behavioral Dysfunction in Mice With Lupus Following Treatment With a Tolerogenic Peptide	
Smadar Lapter, Anat Marom, Asher Meshorer, Anat Elmann, Amir Sharabi, Ezra Vadai, Adi Neufeld, Yechezkel Sztainberg, Shoshana Gil, Dmitriy Getselter, Alon Chen, and Edna Mozes	3744
Interferon- α Mediates Suppression of C-Reactive Protein Explanation for Muted C-Reactive Protein Response in Lupus Flares?	
Helena Enocsson, Christopher Sjöwall, Thomas Skogh, Maija-Leena Eloranta, Lars Rönnblom, and Jonas Wetterö	3755
Progressive Multifocal Leukoencephalopathy A National Estimate of Frequency in Systemic Lupus Erythematosus and Other Rheumatic Diseases	
Eamonn S. Molloy and Leonard H. Calabrese	3761
Childhood Arthritis	
Lymphopenia Is a Risk Factor in the Progression of Carotid Intima-Media Thickness in Juvenile-Onset Systemic Lupus Erythematosus	
Yu-Lin Huang, Hung-Tao Chung, Chee-Jen Chang, Kuo-Wei Yeh, Li-Chen Chen, and Jing-Long Huang ...	3766
Associations Between the American College of Rheumatology Pediatric Response Measures and the Continuous Measures of Disease Activity Used in Adult Rheumatoid Arthritis A Secondary Analysis of Clinical Trial Data From Children With Polyarticular-Course Juvenile Idiopathic Arthritis	
Sarah Ringold, Yun Chon, and Nora G. Singer	3776
Myositis	
Expression of the Dermatomyositis Autoantigen Mi-2 in Regenerating Muscle	
Andrew L. Mammen, Livia A. Casciola-Rosen, John C. Hall, Lisa Christopher-Stine, Andrea M. Corse, and Antony Rosen	3784
Systemic Sclerosis	
Polymorphisms in <i>TBX21</i> and <i>STAT4</i> Increase the Risk of Systemic Sclerosis Evidence of Possible Gene-Gene Interaction and Alterations in <i>Th1/Th2</i> Cytokines	
Pravitt Gourh, Sandeep K. Agarwal, Dipal Divecha, Shervin Assassi, Gene Paz, Rajpreet K. Arora-Singh, John D. Reveille, Sanjay Shete, Maureen D. Mayes, Frank C. Arnett, and Filemon K. Tan	3794
HLA-DPB1 and DPB2 Are Genetic Loci for Systemic Sclerosis Genome-Wide Association Study in Koreans With Replication in North Americans	
Xiaodong Zhou, Jong Eun Lee, Frank C. Arnett, Momiao Xiong, Min Young Park, Yeon Kyeong Yoo, Eun Soon Shin, John D. Reveille, Maureen D. Mayes, Jin Hyun Kim, Ran Song, Ji Yong Choi, Ji Ah Park, Yun Jong Lee, Eun Young Lee, Yeong Wook Song, and Eun Bong Lee	3807
The <i>FAS</i> -670A>G Polymorphism Influences Susceptibility to Systemic Sclerosis Phenotypes	
J. Broen, P. Gourh, B. Rueda, M. Coenen, M. Mayes, J. Martin, F. C. Arnett, and T. R. D. J. Radstake, for the European Consortium on Systemic Sclerosis Genetics	3815
Rapamycin Versus Methotrexate in Early Diffuse Systemic Sclerosis Results From a Randomized, Single-Blind Pilot Study	
Tien-I Karleen Su, Dinesh Khanna, Daniel E. Furst, Gabriel Danovitch, Christina Burger, Paul Maranian, and Philip J. Clements	3821

Lyme Arthritis

HLA-DR Alleles Determine Responsiveness to *Borrelia burgdorferi* Antigens in a Mouse Model of Self-Perpetuating Arthritis

Bettina Panagiota Iliopoulou, Mireia Guerau-de-Arellano, and Brigitte T. Huber..... 3831

Vasculitis

Serum Levels of Proinflammatory Cytokines Interleukin-1 β , Interleukin-6, and Tumor Necrosis Factor α in Mixed Cryoglobulinemia

Alessandro Antonelli, Clodoveo Ferri, Silvia Martina Ferrari, Emiliano Ghiri, Fernando Goglia,

Alessandro Pampana, Fabrizio Bruschi, and Poupak Fallahi 3841

Rituximab May Form a Complex With IgM κ Mixed Cryoglobulin and Induce Severe Systemic Reactions in Patients With Hepatitis C Virus-Induced Vasculitis

Damien Sène, Pascale Ghillani-Dalbin, Zahir Amoura, Lucile Musset, and Patrice Cacoub

3848

Letters

Reply to Letter by Gallo and Petrek Commenting on Interleukin-1 Receptor Antagonist and Interleukin-6 Polymorphisms and Post-Total Hip Arthroplasty Osteolysis

A. Gordon, E. Kiss-Toth, Ian Stockley, Richard Eastell, and J. Mark Wilkinson..... 3856

Microchimerism of the Shared Epitope in Rheumatoid Arthritis: Comment on the Article by Rak et al

Gabriel S. Panayi 3857

Reply

J. M. Rak, L. Maestroni, D. Azzouz, I. Auger, C. Roudier, M. Martin, N. Balandraud, S. Guis, J. Roudier,

H. Boudinet, M. C. Guzman, Z. Yan, R. Didelot, and N. C. Lambert 3857

Needle-Shaped Crystals Are Not Always Urate Crystals: Comment on the Clinical Image by Slobodin et al

Enrico Selvi 3858

Reply

Gleb Slobodin, Michael Lurie, Itzhak Rosner, Majed Odeh, and Michael Rozenbaum

3858

3859

Late-Breaking Abstracts**Reviewers****Contents, Volume 60, 2009****ACR Announcements**

3862

3868

A14

